

# Tribes and Indigenous Peoples



# Chapter 16. Tribes and Indigenous Peoples

## Authors and Contributors

### Federal Coordinating Lead Authors

**Rachael Novak**, Diné/Navajo Nation, formerly Bureau of Indian Affairs (through August 2023)

**Matthew B. Laramie**, Colville Confederated Tribes (Sinixt) and Bureau of Indian Affairs

### Chapter Lead Author

**Kyle Whyte**, Citizen Potawatomi Nation and University of Michigan

### Chapter Authors

**Nicholas G. Bruscato**, US Department of the Interior

**Dominique M. David-Chavez**, Taíno (Borikén) and Colorado State University

**Michael J. Dockry**, Citizen Potawatomi Nation and University of Minnesota

**Michael Kotutwa Johnson**, Hopi Tribe and University of Arizona

**Chas E. Jones Jr.**, Affiliated Tribes of Northwest Indians

**Kelsey Leonard**, Shinnecock Nation and University of Waterloo

### Review Editor

**James Rattling Leaf**, Rosebud Sioux Tribe and North Central Climate Adaptation Science Center

### Cover Art

**L.A. Jacobs**, [C. Avery](#), [K. Champagne](#), [R. Grayson](#)

### Recommended Citation

Whyte, K., R. Novak, M.B. Laramie, N.G. Bruscato, D.M. David-Chavez, M.J. Dockry, M.K. Johnson, C.E. Jones Jr., and K. Leonard, 2023: Ch. 16. Tribes and Indigenous Peoples. In: *Fifth National Climate Assessment*. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA. <https://doi.org/10.7930/NCA5.2023.CH16>

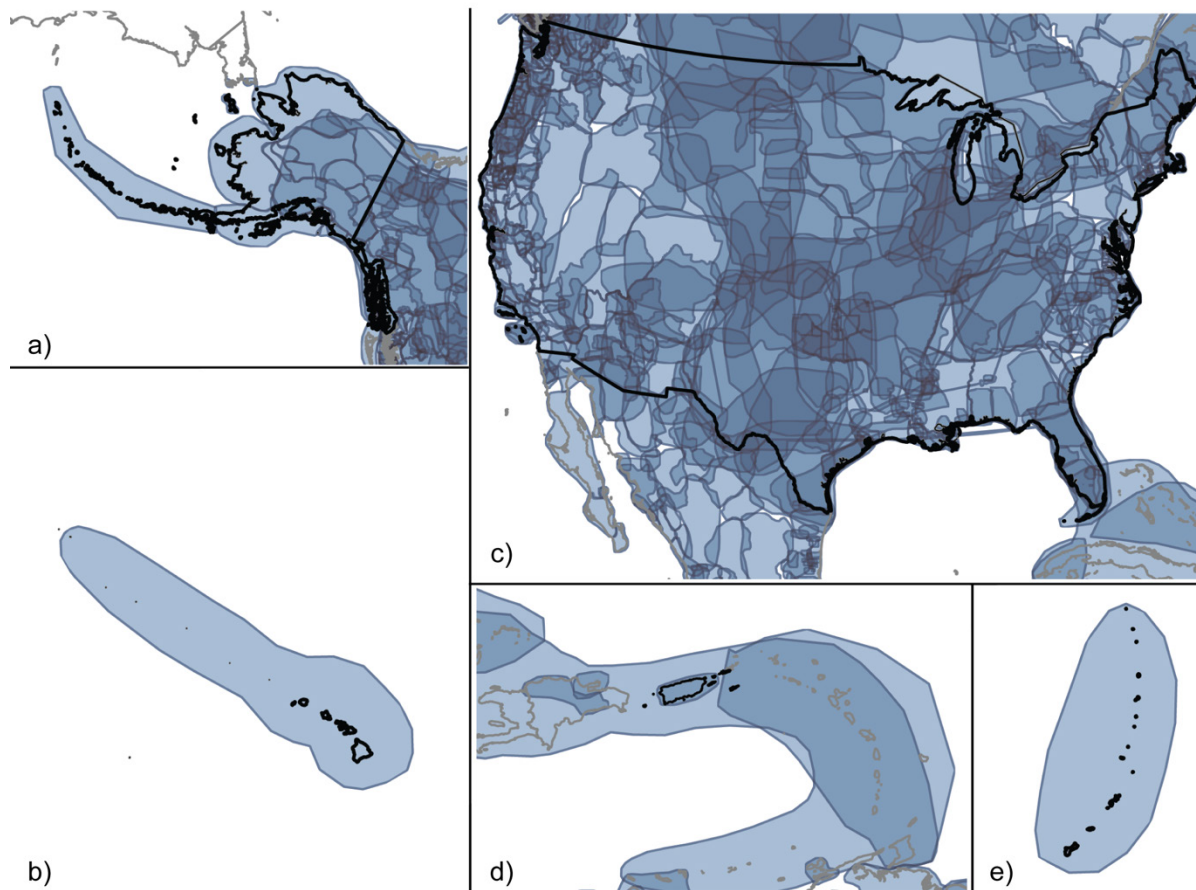
# Table of Contents

|   |           |
|---|-----------|
| <b>Introduction.....</b>  | <b>4</b>  |
| <b>Key Message 16.1</b>   |           |
| <b>Indigenous Peoples Face Risks to Well-Being and Livelihoods from Climate Change and Barriers to Energy Sovereignty .....</b> | <b>8</b>  |
| Indigenous Livelihoods and Economies .....  | 9         |
| Indigenous Energy .....   | 9         |
| Health Risks .....  | 10        |
| Culture .....   | 11        |
| Relocation .....  | 11        |
| <b>Key Message 16.2</b>   |           |
| <b>Self-Determination Is Key to Indigenous Peoples’ Resilience to Climate Change.....</b>                                       | <b>14</b> |
| Self-Determination .....  | 14        |
| Consultation.....   | 14        |
| Capacity Infrastructure.....  | 15        |
| Indigenous Data for Governance.....   | 15        |
| Indigenous Organizational Support.....  | 15        |
| <b>Key Message 16.3</b>   |           |
| <b>Indigenous Leadership Guides Climate Change Response .....</b>   | <b>16</b> |
| Indigenous-Led Climate Initiatives .....  | 17        |
| Youth-Led Climate Movements .....   | 21        |
| Art and Storytelling for Climate Communication .....  | 21        |
| Local, Inter-Tribal, and National Collaboration .....   | 22        |
| <b>Traceable Accounts.....</b>  | <b>23</b> |
| Process Description .....   | 23        |
| Key Message 16.1 .....  | 24        |
| Key Message 16.2 .....  | 25        |
| Key Message 16.3 .....  | 26        |
| <b>References .....</b>   | <b>27</b> |

## Introduction

Indigenous Peoples in the United States represent more than 700 communities and Tribal Nations. They are culturally and politically unique and self-determining societies in North America, Hawai‘i, American Sāmoa, Guam, the Northern Mariana Islands, Puerto Rico, and the US Virgin Islands (Figure 16.1), encompassing diverse ecosystems. They differ in their relationships with federal, state, territorial, and local governments but have similarly endured genocide and land dispossession (Figure 16.2). Indigenous Peoples’ origins begin millennia ago, long before the United States. Many Indigenous persons are scientists of the environment, holding holistic understandings of the interconnected drivers of climate change and evidence of climate-related changes and strategies for adaptation (Figure 16.3; KMs 26.1, 27.6, 30.2, 30.5).<sup>1,2,3,4,5,6</sup> For generations, Indigenous Peoples have centered their knowledge of climate change in their cultures, political organizations, and arts. Many Indigenous persons closely track natural cycles and assemblages of plants and animals, making them keenly aware of environmental disruptions.

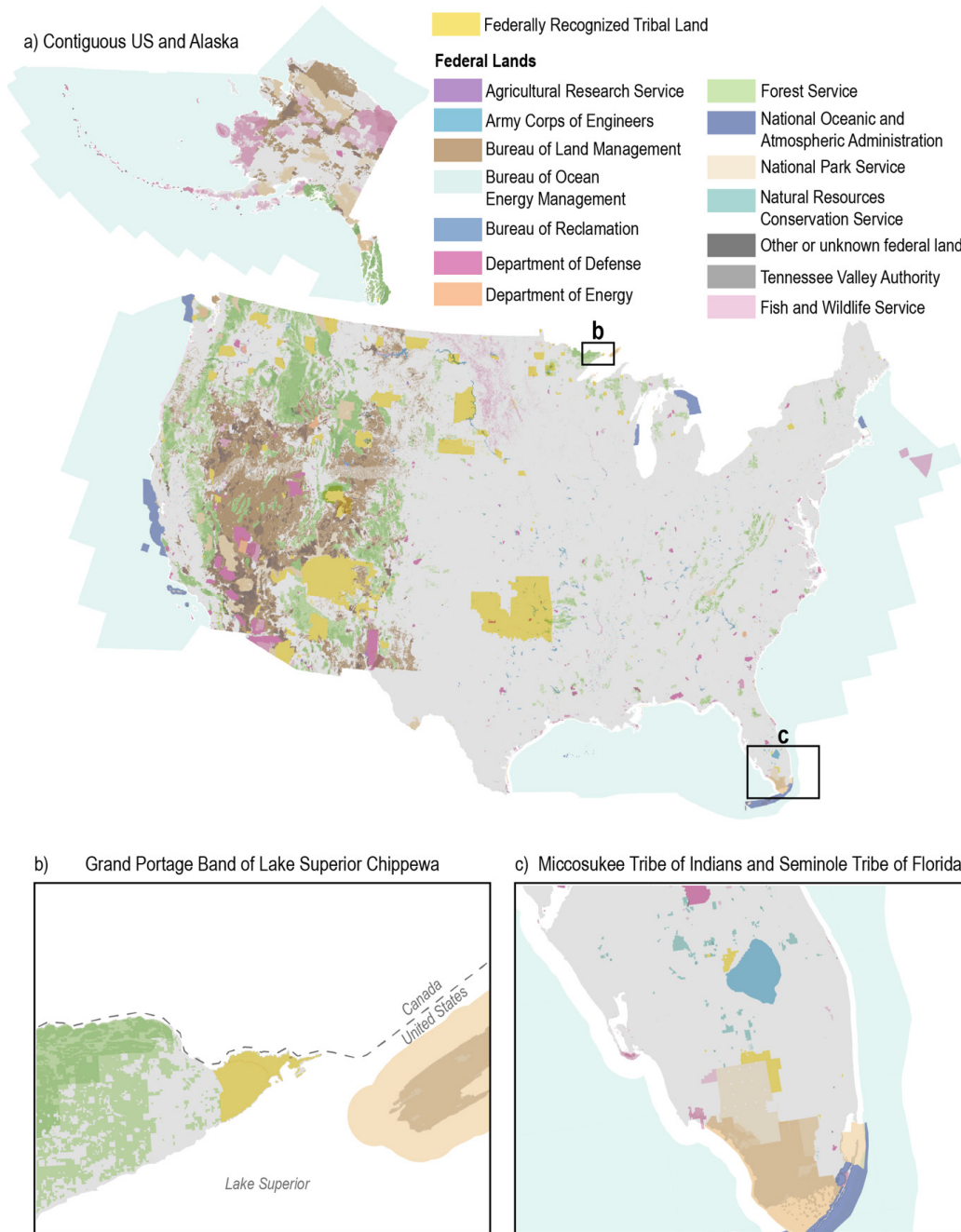
## Representative Locations of Indigenous Peoples



### Homelands of Indigenous Peoples are located throughout the US and its territories.

**Figure 16.1.** The maps show pre–United States customary (traditional) homelands and some US-recognized contemporary homelands. The maps represent overlapping territories (approximately represented in outlined, shaded areas, with darker shading representing areas of overlap) in North America (**a** and **c**), Hawai‘i (**b**), Puerto Rico and the US Virgin Islands (**d**), and Guam and the Northern Mariana Islands (**e**). The maps exclude most Indigenous marine territories. Given available data, the maps omit many territories (e.g., in American Sāmoa). Figure credit: Colorado State University, NOAA NCEI, and CISESS NC.

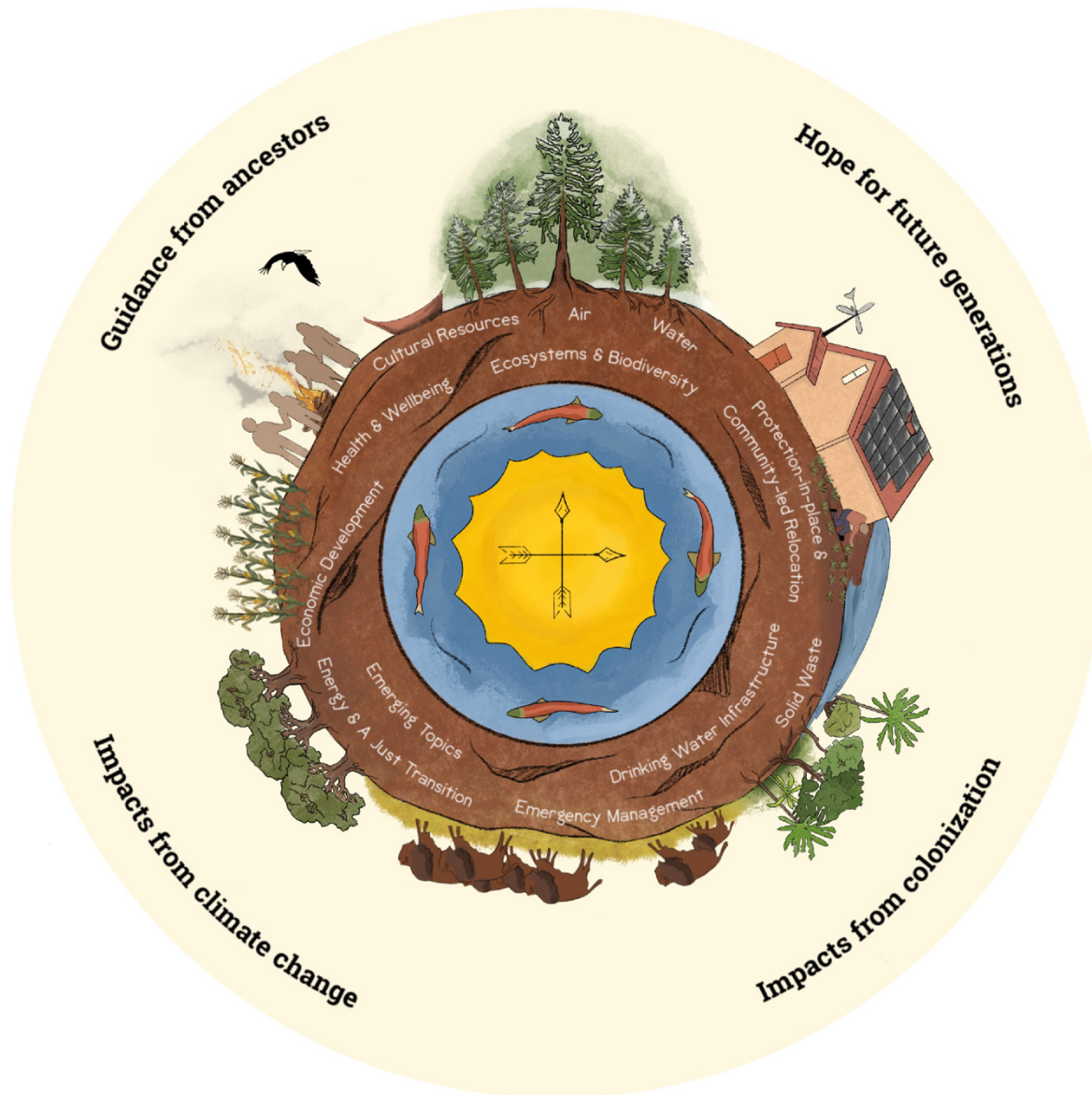
## The Complexity of Land Tenure for Indigenous People



**Federally Recognized Tribal Lands are often near federal lands, where Indigenous Peoples may have consultation, treaty, or comanagement rights.**

**Figure 16.2.** The maps show many of the current federally recognized reservations in the continental US, including Tribal trust lands (and excluding fee lands and Hawai‘i, US Caribbean, and US-Affiliated Pacific Islands). Federal lands, including national parks, national forests, and wilderness areas, are shown, as Tribal Nations can have rights to comanage, exercise treaty rights, and consult on land management decisions. Panels (a), (b) and (c) show, in additional detail, the relationship between federal and Tribal lands. The profiles of (b) Grand Portage Band of Lake Superior Chippewa and (c) Miccosukee Tribe of Indians and Seminole Tribe of Florida highlight current and potential comanagement agreements between Federally Recognized Tribes and the Federal Government.<sup>7,8</sup> Figure credit: Citizen Potawatomi Nation, University of Minnesota, and DOI. See figure metadata for additional contributors.

## Indigenous Holistic Worldview



**Indigenous holistic worldviews offer diverse and complex expressions of climate change.**

**Figure 16.3.** As an intentionally non-exhaustive example by particular Indigenous designers, the “Indigenous holistic worldview” image demonstrates interconnected drivers of sustenance, climate change impacts, and future aspirations. Illustrations connecting human social systems and the environment, including the relationship between social justice (e.g., colonialism, racism) and environmental change (e.g., ecological degradation, pollution), represent certain Indigenous approaches to climate change. Figure credit: ©STACCCWG 2021.<sup>6</sup> Used with permission.

Indigenous Peoples have distinct rights to self-determination, cultural protection, and land use in relation to federal, state, and local government and nonprofit and for-profit institutions.<sup>6</sup> For example, Alaska Native corporations own and hold resource rights in one-tenth of Alaska lands for the purpose of economic development.<sup>9,10</sup> Alaska Tribal governments are responsible for managing government services, including cultural revitalization, for their members yet control significantly less land than corporations (see Ch. 29). Broadly, Indigenous-operated institutions include local customary and traditional governing systems, US Federally Recognized Tribes, treaty organizations, Alaska Native Corporations, Alaska Native villages, community development corporations and financial institutions, Native Hawaiian Organizations and

Hawaiian Home Lands, Indigenous-serving organizations within US territories, state-recognized Tribes, urban Indigenous centers, and more.

US federal and some state governments have agencies and programs with legal mandates to support Indigenous Peoples' health, economic vitality, education, environmental quality, and cultural continuance. The Federal Government has a legal obligation to consult with Federally Recognized Tribes and the Native Hawaiian community.<sup>11,12,13,14</sup> The US has given a non-binding endorsement of Indigenous Peoples' rights as articulated in the United Nations Declaration on the Rights of Indigenous Peoples, which affirms that Indigenous Peoples have rights to self-determination and free prior and informed consent regarding territorial development and the protection of their health, cultures, and knowledge.

Climate change negatively disrupts Indigenous Peoples' health (KM 15.2), economic vitality, education, environmental quality, governance, and cultural continuance (Figure 16.3).<sup>6,15</sup> Historical abuses of Indigenous rights have significant responsibility for the heightened severity of climate disruption.<sup>6,16,17</sup> The US government's taking of land from Indigenous Peoples has increased vulnerability to climate disruption.<sup>18,19,20</sup> The growth of the US industrial sector heavily polluted and degraded Indigenous territories through mining, fossil-fuel energy development and use, commodity and plantation agriculture, unsustainable forestry, and military infrastructure and activities.<sup>21,22,23,24,25,26,27</sup>

Today, Indigenous initiatives addressing climate and energy are often organized as movements for protecting and advancing Indigenous rights. These include rights to self-determination regarding climate change responses in their territories—rights that are critical to Indigenous efforts to choose the best pathways for supporting health, economic vitality, educational institutions, environmental quality, governance, cultural continuance, and spiritual traditions.

## Key Message 16.1

### Indigenous Peoples Face Risks to Well-Being and Livelihoods from Climate Change and Barriers to Energy Sovereignty

Climate change continues to cause negative effects on critical aspects of Indigenous Peoples' well-being, including their livelihoods, health, nutrition, and cultural practices, as well as the ecological resilience of their territories (*very high confidence*). Indigenous Peoples are responding in diverse ways, including through energy sovereignty (*very high confidence*).

Indigenous Peoples face harms and risks from climate change that negatively affect their health and well-being, economic sustenance, and cultural integrity and continuity (KMs 15.3, 25.3, 27.6, 29.1).<sup>28,29,30,31,32,33</sup> Given the diversity of Indigenous Peoples, no single chapter could adequately address projections of the impacts of climate change on many hundreds of communities 25–100 years in the future. In this Key Message, relocation, including permanent relocation and managed retreat, is covered as a separate topic. Many Indigenous Peoples continue to be among the communities navigating climate-related disasters and negotiating permanent relocation, expansion, community-led relocation,<sup>34</sup> and managed retreat (KMs 29.1, 29.4, 30.2). Indigenous Peoples face injustice in energy transitions and barriers to investing in renewable energy.<sup>35,36,37,38,39</sup> The information in this Key Message builds on the findings of Tribal and Indigenous Peoples' chapters in previous National Climate Assessments without repeating previous findings.



## Indigenous Livelihoods and Economies

Indigenous livelihoods and economies often rely on combinations of subsistence systems, natural resource management, small businesses, nonprofit organizations, community development corporations and financial institutions, Tribal government employment and contracts, Tribal enterprises, and multinational corporations.<sup>40</sup> Regarding US indicators, Indigenous Peoples are disadvantaged in terms of income, employment, wealth, and access to adequate infrastructure, which has negative impacts on the availability of resources for climate response.<sup>6,18</sup> Despite disadvantages, Tribes manage complex governments and economies. For example, there are 87 Native American financial institutions (banks, credit unions, and loan funds) managing \$8 billion (in 2022 dollars).<sup>41</sup>

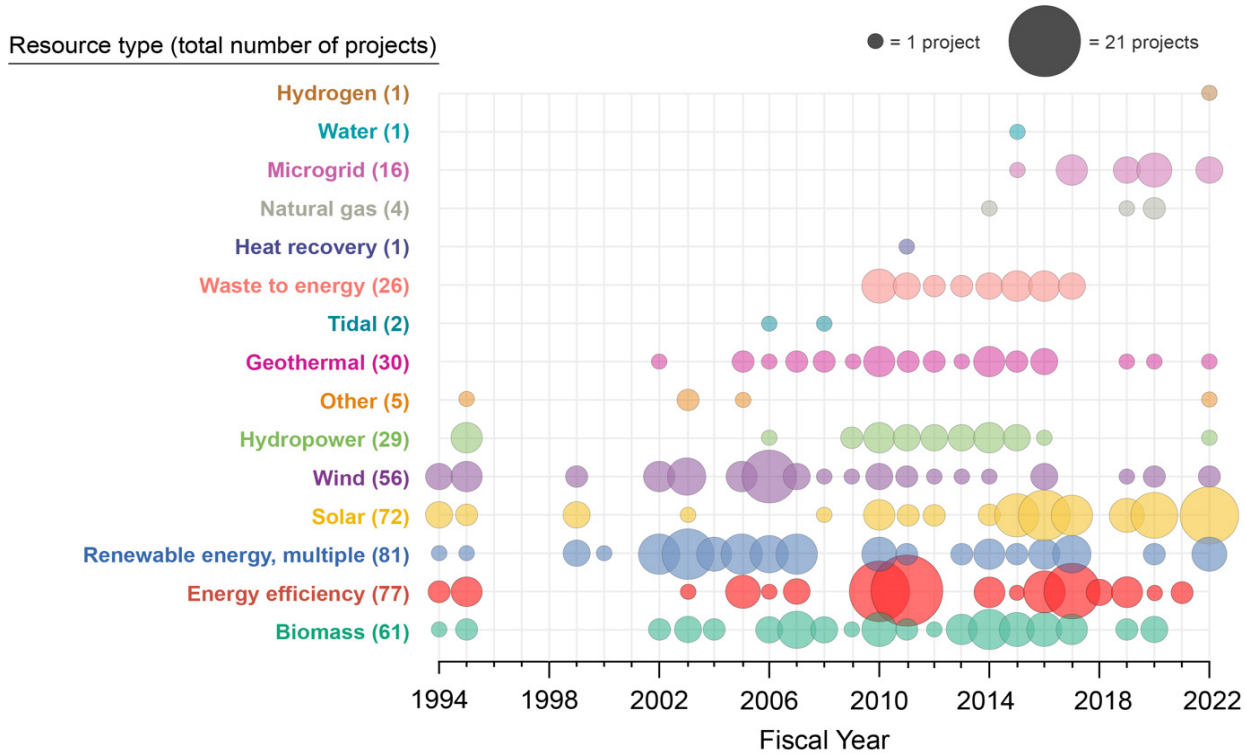
Climate change threatens to disrupt the conditions for critical Indigenous subsistence practices, including, but not limited to, planting, pollination, harvesting, the preparation and storage of food and medicines (i.e., medicinal plants), and subsistence-related travel (KMs 7.2, 10.2, 11.2, 21.3, 24.3, 29.3, 29.4, 29.5, 30.1, 30.2).<sup>15,42,43,44,45,46,47,48,49,50,51,52,53,54</sup> Other climate-induced economic disruptions to subsistence and business include losses of timber revenue from wildfire or declines in culturally important species used for activities like basketry,<sup>55</sup> berry harvesting,<sup>56</sup> fisheries,<sup>57,58</sup> and tourism (KMs 29.3, 30.3). Losses of subsistence lifestyles are associated with decreased capacity to cope with climate change.<sup>59</sup> Economic insecurity on subsistence and business can compound existing economic challenges,<sup>60</sup> including poverty, labor exploitation, colonial debts, and inaccessibility of finance mechanisms.<sup>61,62,63</sup>

Nonetheless, robust Indigenous economies and entrepreneurial enterprises provide paths toward greater Indigenous resilience. Revitalization of Indigenous agricultural practices are also linked to increased economic resilience and food security, such as Native Hawaiian lo'i and dryland agriculture.<sup>64</sup> In other cases, Indigenous People with strong ties to or ownership of successful and diverse economic enterprises have shown progress in their climate resilience.<sup>65,66</sup>

## Indigenous Energy

Lack of capacity to transition toward renewable energy can be considered a vulnerability to climate change—that is, vulnerability to being excluded from unlocking the capacity to enact mitigation measures. Numerous factors affect Indigenous self-determination in renewable energy, including barriers to infrastructure ownership, access to financing and tax incentives, the navigation of regulations and jurisdictions, and income opportunities from renewables (KM 23.4).<sup>39,67,68,69,70,71,72,73,74</sup> Affordable renewable energy is often inaccessible to Indigenous households, inhibiting a just energy transition (Figure 16.4).<sup>18,75,76,77,78</sup>

## Tribal Renewable Energy Projects



**The breadth of project type and funding amounts have increased for federally funded renewable energy projects.**

**Figure 16.4.** The figure shows federally funded Tribal renewable energy and energy-efficiency projects between 1994 and 2022. The size of the circles indicates the number of projects: the larger the circle, the more projects of that energy type were funded that year. Historically, projects like retrofitting to improve energy efficiency, as well as renewable energy projects including solar, wind, and biomass, often received funding. The more recent trend toward microgrid and solar projects mirrors efforts to build Tribal energy sovereignty. Figure credit: DOI, NOAA NCEI, and CISESS NC.

## Health Risks

Indigenous concepts of health and well-being often remain closely tied to the health of the environment, waters, and more-than-human relatives that provide for subsistence and cultural needs (KMs 29.1, 30.2).<sup>6,79,80</sup> Climate change has decreased Indigenous Peoples' access to nutritious subsistence diets necessary for food sovereignty and security (KMs 21.4, 27.1, 28.3, 30.1)<sup>47,49,50,81,82,83</sup> and access to clean water (KMs 4.2, 30.1).<sup>84</sup> Climate change generally has had detrimental health impacts to Indigenous Peoples (KM 15.1).<sup>85</sup> Negative health outcomes and deaths have increased from extreme weather events, including heatwaves, flooding, changing ice conditions, hurricanes/typhoons, and wildfires (KMs 23.1, 30.2).<sup>15,86</sup> These negative health outcomes include post-traumatic stress disorder, anxiety, suicide, and other mental, spiritual, and social-emotional health challenges (KMs 15.1, 23.1, 29.1; Figure 29.3),<sup>87,88,89</sup> which can be exacerbated by intergenerational trauma<sup>90</sup> and breakdowns in family and community relationships.<sup>85</sup> These negative health impacts can amplify existing stressors on Indigenous health and well-being, including inadequate infrastructure, high rates of certain health conditions, high burdens of pollution, limited access to healthcare, water scarcity, poor sanitation, risks to occupational safety, and disproportionately high rates of environmental justice-related violence and human rights violations, many of which are especially burdensome for women (KM 4.3).<sup>15,17,84,85,91,92,93,94</sup>

Climate change and the COVID-19 pandemic have negatively affected Indigenous cultural, spiritual, physical, and mental health. In Alaska, pandemic-related travel restrictions limited food access, seasonal harvesting, and communal gatherings that maintain Indigenous Knowledge and practices around food systems, causing physical and mental health impacts.<sup>95,96</sup> High fuel prices and low salmon prices disrupted Indigenous businesses.<sup>97</sup> Broadly, food supply shortages and high costs during the pandemic compounded preexisting Indigenous food insecurities.<sup>97,98,99,100</sup> Preexisting water scarcity, such as in the Navajo Nation (KM 28.1),<sup>101</sup> Crow Agency, Montana,<sup>85</sup> and many Alaska Native communities (KM 29.1),<sup>102</sup> limited sanitation and hygiene practices and inhibited hydration and nutrition (KM 15.2).<sup>101,103,104,105,106</sup> During the peak periods of COVID-19 infection, disrupted stewardship and cultural activities included first salmon ceremonies,<sup>97</sup> canoe journeys,<sup>99</sup> wildfire response,<sup>45</sup> and Indigenous sports (e.g., stickball, lacrosse).<sup>107</sup> Some communities were able to engage in socially distanced and safe activities.<sup>108</sup> Climate change compounded preexisting inequities among Indigenous People who have low access to healthcare (KM 15.2)<sup>85,109</sup> and high risk of COVID-19 infection, hospitalization, and death.<sup>110</sup>

### Culture

Climate change compromises Indigenous territorial integrity, spiritual values and practices, and lifeways essential to cultural heritage and identity (KMs 6.1, 10.1, 23.1, 26.1, 30.5; Box 1.3).<sup>6,15,29</sup> Climate-induced coastal hazards such as sea level rise, floods, storm surge, and erosion threaten Indigenous cultural sites, including burial grounds, sacred sites, museums, and other cultural infrastructure.<sup>111,112,113,114</sup> Climate change increasingly threatens the sustainability of culturally significant tree species used for making lodges,<sup>115</sup> totem poles,<sup>116</sup> basketry,<sup>117</sup> and maple syrup and sugar,<sup>118</sup> among other examples. As culturally significant habitats shift out of Indigenous jurisdictions, challenges arise for treaty rights, Native Hawaiian homelands, and other access rights.<sup>15,80</sup> Linguistically, some Indigenous place names that reference local geographic features, animals, plants, and first foods no longer accurately describe environmental conditions or associations.<sup>119</sup> Changes to sea ice in Alaska will make certain environmental words in the Inupiaq dialect of Wales obsolete.<sup>120,121,122</sup> These altered conditions could lead to health and safety concerns and significant cultural impacts.<sup>28,122</sup> Phenological changes impact the timing of culturally significant patterns in nature (KM 8.2). For example, the Indigenous Phenology Network formed to understand phenological changes on Indigenous lands throughout the US.<sup>123</sup>

### Relocation

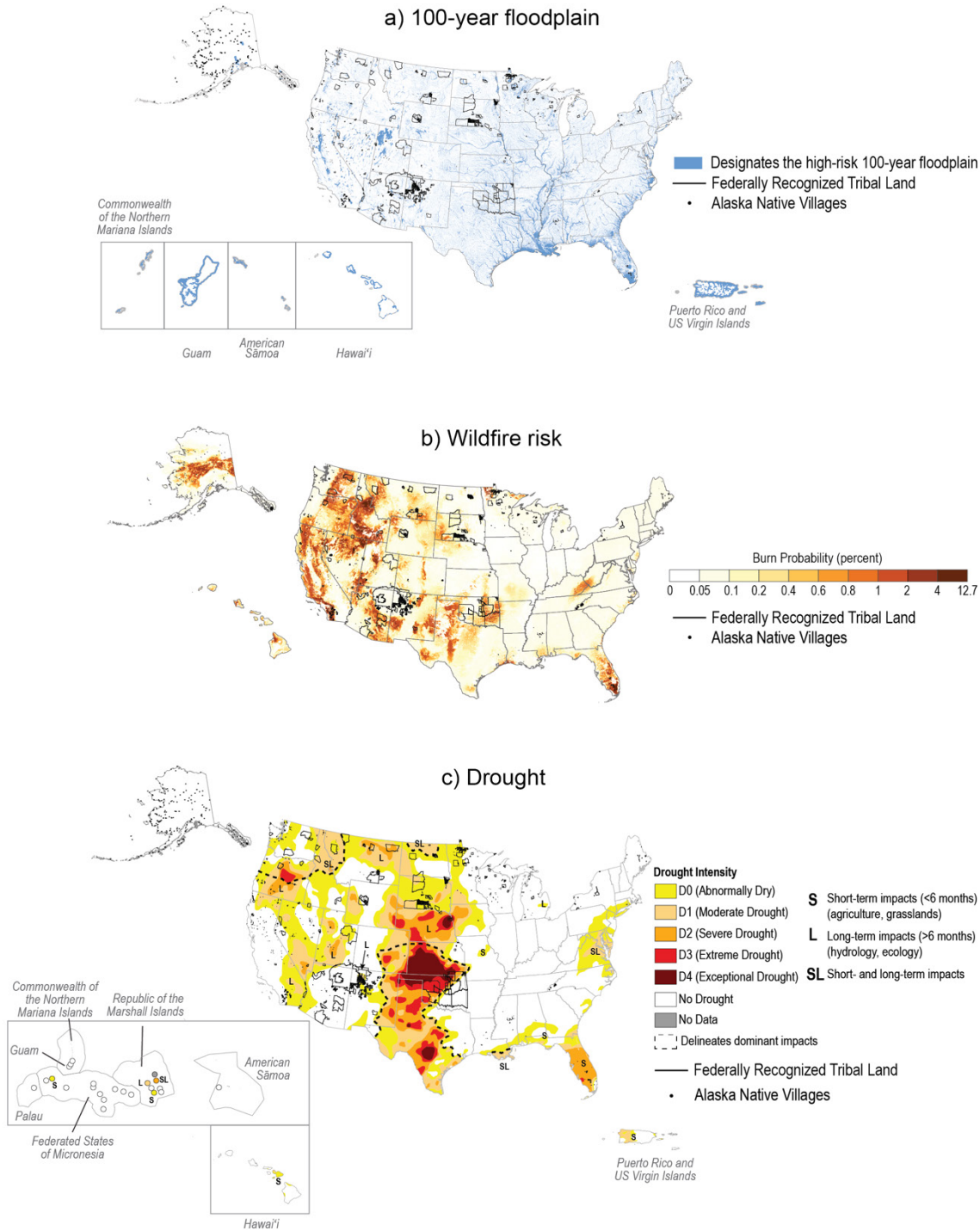
Indigenous Peoples, including Alaska Native villages, Pacific and Atlantic Coast Tribes, and Louisiana coastal Tribes, face unmet infrastructure needs and added stressors to culture and livelihoods as they relocate in response to increased erosion, more frequent flooding, increases in permafrost thaw, and rising sea levels (KM 29.2; Box 20.1).<sup>18,114,124,125</sup> Indigenous infrastructure is critical to supporting economies, sovereign security, and ways of life; it consists of a broad spectrum of human-built structures and facilities—from power grids to cultural and subsistence-related infrastructure—that are critical to the lives of Indigenous Peoples. According to the Bureau of Indian Affairs (BIA),<sup>18</sup> projected infrastructure costs arising from environmental impacts over the next 50 years are \$4.8 billion for Alaska Native communities and a minimum of \$2.1 billion for Federally Recognized Tribes (both amounts in 2022 dollars).<sup>18</sup> Seventy out of 200 Alaska Native villages face severe impacts from permafrost thaw, coastal erosion, and increased storminess.<sup>126</sup>

Indigenous Peoples in Hawai‘i, Puerto Rico, American Sāmoa, Guam, and the Commonwealth of the Northern Mariana Islands face distinct challenges for relocation based on their unique histories of colonialism. Often, impacts of climate change on US island regions and territories have been raised only in relation to impacts to life below water and not for Indigenous Peoples themselves.<sup>127</sup> Indigenous Peoples in US territories are often ineligible for federal funding for climate impacts, as well as international financing mechanisms due to their US affiliation.<sup>128</sup>

Most Indigenous Peoples face barriers to securing sufficient resources to implement climate adaptation, including home-building loans and complex technical data and training for decision-making (KMs 16.2, 29.4). Indigenous Peoples face intricate land policies that can prevent relocating or recovering their territorial bases, such as the US Supreme Court's decision in *Carcieri v. Salazar* (2009), which prohibited land restoration for certain Tribal Nations.<sup>114,129,130,131,132</sup>

When impacted by flooding, Indigenous Peoples do not receive equitable implementation of the National Flood Insurance Program (NFIP). The NFIP's inability to support a diversity of Indigenous jurisdictions and effectively communicate program information inhibits Indigenous Peoples' success as program operators and beneficiaries.<sup>29</sup> Indigenous Peoples face high costs through premiums, salaries for floodplain managers, and the expense of time and resources needed to develop, adopt, enforce, and maintain floodplain management ordinances.<sup>133</sup> They are required to pay into the NFIP even when they had been forcibly relocated by the US government to marginal, flood-prone land.<sup>20,134,135,136</sup> Indigenous Peoples are at risk of inundation and have limited ability to mitigate flood risk and manage floodplains, a circumstance made worse by the limits of available flood risk information. FEMA, EPA, and the US Army Corps of Engineers fund the development of flood-risk data (Figure 16.5a). However, historically inequitable and inconsistent delivery of data to Indigenous communities, including not honoring Tribal sovereignty, has prompted some Tribes to reject federally funded flood risk data and develop their own flood-risk data through university partnerships.<sup>113,133</sup>

## Publicly Available Climate Data in Relation to Indigenous Territories



**Some tribal lands are vulnerable to floods, wildfire, and drought.**

**Figure 16.5.** These maps feature (a) EPA and FEMA’s 100-year floodplain projections; (b) wildfire hazard potential through burn probability, which is the annual probability of wildfire burning in a particular area, also known as wildfire likelihood; and (c) drought intensity and duration of impact. Federally Recognized Tribal Land is outlined in solid black lines, and Alaska Native villages are indicated by black dots. Wildfire risk data were not available for the US Caribbean and US-Affiliated Pacific Islands. Figure credits: (a, b) FEMA, NOAA NCEI, and CISS NC; (c) adapted from US Drought Monitor 2023.<sup>137</sup>

## Key Message 16.2

### Self-Determination Is Key to Indigenous Peoples' Resilience to Climate Change

By exercising their right to self-determination, Indigenous Peoples can respond to climate change in ways that meet the needs and aspirations of their communities (*very high confidence*). However, their ability to exercise this right is often undermined by institutions and policies shaped by the impacts of settler colonialism (*very high confidence*). Expanded support from federal and state governments has the potential to uphold Indigenous rights to self-determination for guiding climate resilience (*high confidence*).

Self-determination means Indigenous Peoples make decisions about how to respond to climate change in ways that meet community-defined needs and aspirations. Indigenous climate resilience requires having adequate options for deciding how to adapt to and mitigate climate change and the capacity to implement decisions and make strategic revisions upon evaluation. For many Indigenous Peoples, certain social and political conditions can support or curtail their capacity for self-determination. Indigenous self-determination has been limited by institutions and policies, colonial in their organizational structure, that enable federal, state, and local governments and private industry to make decisions for Indigenous Peoples and to maintain low levels of funding and administrative support for implementation.<sup>4,54,138,139,140,141,142</sup> The ramifications are very practical in nature, including a lack of sufficient high-speed internet, adequate roads, shovel-ready projects, and financial, grant, and project management resources and staff.

#### Self-Determination

Self-government is one application of self-determination. Although some Indigenous Peoples with self-government have rights recognized by the US, social and political conditions can curtail these rights.<sup>138,143,144</sup> Indigenous Peoples are often left out of cross-jurisdictional climate and emergency planning with federal, state, or local governments.<sup>143</sup> As an alternative, many Tribes have called for Indigenous-led management, as well as comanagement of lands, waters, and other resources currently under federal or state management. Comanagement, or even Indigenous-led management, represents opportunities to assert Tribal resource-management practices that address climate change.<sup>145,146,147</sup> Comanagement has been shown to be problematic if Indigenous capacities are not bolstered, communication is not clear and consistent, and Indigenous cultures are not uplifted.<sup>148</sup>

#### Consultation

For Federally Recognized Tribes, the US has a duty of government-to-government consultation.<sup>149</sup> Consultative processes, however, are not yet widely practiced in ways that empower Tribes, even when the US and its agencies increase the number of consultations.<sup>14,148</sup> In some cases where federal or state agencies hire Tribal liaisons, the liaison role is only a small percentage of those employees' full-time positions, and they often are responsible for establishing and managing relationships with numerous Tribes.<sup>150</sup> Federal agencies must consult with the Native Hawaiian community in relation to certain statutes, and in some cases other Indigenous organizations, such as Native Hawaiian Organizations, can consult with federal agencies. Indigenous Peoples without formal consultative relationships face barriers to voicing their knowledge and concerns in public-participation and stakeholder-engagement processes, curtailing their self-determination.<sup>151,152,153</sup> Climate change issues involve coordination and communication that must be underwritten by consultation.

## Capacity Infrastructure

Indigenous Peoples can lack the needed staffing and workforce development capacities to fully implement climate change plans—efforts that can include applying for and managing grant funds, energy feasibility studies, natural resource assessments, hazard mitigation plans, environmental monitoring, legal efforts to enforce land, water and natural resource rights, and forest and natural resource protection and management (KM 23.5).<sup>154</sup> Funding is often not distributed in ways that Indigenous Peoples can access and benefit from, even during years when budget increases occur.<sup>141</sup> Funding may require matching funds, reimbursements, reporting requirements, degrees of shovel-readiness, or other administrative burdens that Indigenous administrative units cannot shoulder. This often results from lack of consultation of Indigenous Peoples in developing federal funding spending plans.<sup>97,155</sup> Tribal colleges and universities are often underfunded and face additional barriers to the accreditation necessary to train Indigenous community members in the academic fields related to climate change.<sup>156</sup>

Indigenous Peoples face compounding infrastructure deficiencies that threaten resilience—involving infrastructure tied to water quality and access, coastal shoreline protection, telecommunications and broadband, transportation, supply chain management, energy efficiency and access, and sustainable forest management (such as sawmills, secondary processing facilities, logging equipment, and staffing to operate and maintain infrastructure; KMs 23.4, 29.4, 30.3).<sup>18,141</sup> Indigenous Peoples face numerous barriers to accessing sufficient high-speed internet connections critical for education and capacity-building.<sup>157,158</sup> Coordinated infrastructure projects that mutually support one another would significantly advance Indigenous Peoples' resilience goals.<sup>18</sup> For example, Tribes have coordinated housing infrastructure programs with renewable energy projects<sup>67</sup> and community-level flood mitigation planning.<sup>133,159</sup> In Puerto Rico, community-coordinated efforts are working to serve energy and restoration needs (KM 23.5).<sup>35,160</sup>

## Indigenous Data for Governance

Indigenous Peoples face challenges in accessing relevant data to support decision-making for climate resilience.<sup>6</sup> For example, they lack environmental data for Tribal lands and waters and often have access only to data that are misaligned with community values and priorities.<sup>161</sup> Indigenous advocacy for data ownership, protection, and access focuses on relevance to their peoples, cultures, territories, ancestors, traditional places, knowledge, epidemiology, and public health.<sup>162,163</sup> This includes ensuring that other parties seeking to collect and use data from or relating to Indigenous Peoples follow the principle of free, prior, and informed consent. Indigenous Knowledge holders and leaders call for more equitable relationships with scientists and support for Indigenous-led research.<sup>164</sup> The CARE Principles (Collective benefit, Authority to control, Responsibility, and Ethics) for Indigenous Data Governance, which emphasize Indigenous concerns and rights about data, are increasingly being applied in climate change-related projects.<sup>161,165,166,167,168</sup> Large US-based environmental data repositories, including the Earth Science Information Partners, are currently exploring methods for operationalizing the CARE data principles by improving data management capacity to ensure that data can be disaggregated, scaled down, and used to support Indigenous climate change planning.<sup>161,166,169,170</sup>

## Indigenous Organizational Support

Indigenous organizations are important for carrying forward the messaging of their constituencies and providing additional unfulfilled services to communities. Indigenous urban centers provide large Indigenous populations in cities across the US—from New York to Los Angeles, Boston, Chicago, Phoenix, and more—with vital social services necessary for resilient urban populations in a changing climate (KM 12.4).<sup>171</sup> Inter-Tribal organizations and networks serve as resources for enhancing Tribes' climate change planning.<sup>172,173</sup> For example, the Intertribal Timber Council, Columbia River Inter-Tribal Fish Commission, and Great Lakes Indian Fish and Wildlife Commission are leading innovative climate adaptation research

in their regions and inspiring cross-cultural scientific collaborations with non-Indigenous researchers, scientists, and organizations.<sup>144,174,175,176,177</sup> Other organizations such as the National Congress of American Indians, United South and Eastern Tribes, and Affiliated Tribes of Northwest Indians support Tribes in their efforts to build climate resilience.<sup>114,178,179</sup> Indigenous businesses can provide climate services if offered equal access to contracts, opportunities, and information.<sup>153</sup> Indigenous organizations have sought to advocate for Indigenous perspectives, values, insights, and lived experiences of Indigenous Peoples by seeking to increase their access to appointed and elected leadership and decision-making positions.<sup>180</sup>

### Key Message 16.3

## Indigenous Leadership Guides Climate Change Response

Indigenous Peoples lead numerous actions that respond to climate change (*high confidence*). Indigenous-led organizations, initiatives, and movements have demonstrated diverse strategies for climate adaptation and mitigation that are guided by Indigenous Knowledges and values and by the pursuit of Indigenous rights (*high confidence*).

Indigenous-led actions to address climate and energy include implementation of climate adaptation strategies, climate and energy planning and policy initiatives, youth movements on climate justice, artistic mixed-media messaging about Indigenous experiences with and knowledges of climate change, and movements aimed to connect diverse Indigenous Peoples with one another spanning local to international scales (Figure 16.6).<sup>6,80,138,181,182,183,184,185,186,187,188,189</sup> Indigenous-led actions are often guided by Indigenous Knowledges, Indigenous values, and the pursuit of Indigenous rights to self-determination (Figure 16.3; KMs 2.3, 21.4, 24.4, 25.5, 26.3, 27.6, 28.3, 28.5, 29.7, 30.5).<sup>190,191</sup>



## Indigenous Ingenuity the Hopi Way



**Actions on climate change taken by the Hopi people engage science, tradition, and education.**

**Figure 16.6.** For more than 2,000 years, the Hopi have been adapting to an average of 6 to 10 inches of annual precipitation. Seeds from corn, beans, melons, and squash grown in drought years are used again in dry years. Hopi children learn dryland farming and the values, customs, and identities of why they farm. **(left)** Hopi soil-moisture conservation techniques allow corn plants to adapt to extreme conditions such as drought. **(bottom right)** Hopi children in a traditional corn field learn about science through a cultural lens. **(top right)** A traditional Hopi sandstone home incorporates Western science with the use of solar and hydro panels. Photo credits: © Michael K. Johnson, University of Arizona.

## Indigenous-Led Climate Initiatives

Many Tribes and Indigenous organizations have created climate plans. The Department of Energy has supported more than 190 Tribal-led energy projects, including many renewable energy projects (Figure 16.4). The BIA has funded many Tribal-led climate and energy projects, including 250 feasibility studies for renewable energy and hundreds of adaptation planning efforts (Tables 16.1, 16.2). Indigenous Peoples are including changing climate conditions in hazard mitigation plans (KMs 21.4, 25.2),<sup>192</sup> by incorporating available climate data (Figure 16.5), making them eligible for Hazard Mitigation Assistance grants through FEMA's Building Resilient Infrastructure and Communities program. Initiatives by the National Indian Health Board's Climate-Ready Tribes project, FEMA, the BIA's Tribal Climate Resilience program, the Tribal Climate Health Project, and the Institute for Tribal Environmental Professionals, among others (the [Climate Adaptation Science Centers](#); the [Climate Adaptation Knowledge Exchange](#), the [Tribal Climate Change Project](#)),<sup>193</sup> further capacities and expand funding.<sup>159,194</sup> The Institute for Tribal Environmental Professionals, for example, has created several levels of adaptation planning training, reaching more than 390 Tribes and more than 30 Tribal organizations.

**Table 16.1. Number of BIA Tribal Climate Resilience Funding Awards Per Category**

Cells with “n/a” for “not available” indicate years before an award category was offered. The categories include: 1, Trainings and Workshops; 2, Adaptation Planning; 3, Travel Support for Climate Adaptation Planning; 4, Ocean and Coastal Management Planning; 5, Travel Support for Ocean and Coastal Management; 6, Capacity Building for Scoping Efforts; 7, Relocation, Managed Retreat, or Protect-in-Place; 8, Internships; 9, Youth Engagement; 10, Implementation of Climate Adaptation Strategies; 11, Implementation of Community Relocation, Managed Retreat, or Protect-in-Place Actions; 12, Relocation, Managed Retreat, or Protect-in-Place Coordinator. Values indicate actual awarded amounts; no adjustments have been made for inflation. Funds for 2017 and 2018 were combined and awarded in 2018 due to delays resulting from governmental shutdown. Source: BIA.<sup>195</sup>

| Year         | Cat 1     | Cat 2      | Cat 3      | Cat 4      | Cat 5     | Cat 6     | Cat 7     | Cat 8     | Cat 9     | Cat 10    | Cat 11   | Cat 12    | Total Awards | Total \$             |
|--------------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|--------------|----------------------|
| 2011         | n/a       | 6          | 9          | n/a        | n/a       | n/a       | n/a       | n/a       | n/a       | n/a       | n/a      | n/a       | 15           | \$327,637            |
| 2012         | n/a       | 0          | 0          | n/a        | n/a       | n/a       | n/a       | n/a       | n/a       | n/a       | n/a      | n/a       | 0            | \$0                  |
| 2013         | n/a       | 6          | 13         | n/a        | n/a       | n/a       | n/a       | n/a       | n/a       | n/a       | n/a      | n/a       | 19           | \$694,731            |
| 2014         | 3         | 16         | 19         | n/a        | 6         | n/a       | n/a       | n/a       | n/a       | n/a       | n/a      | n/a       | 44           | \$2,286,316          |
| 2015         | 8         | 38         | 30         | 19         | 7         | n/a       | n/a       | 12        | 7         | n/a       | n/a      | n/a       | 121          | \$13,322,972         |
| 2016         | 5         | 20         | 32         | 11         | 1         | 7         | n/a       | 5         | 2         | n/a       | n/a      | n/a       | 83           | \$8,791,510          |
| 2017/<br>18  | 18        | 42         | 32         | 30         | 13        | 3         | n/a       | 0         | 0         | n/a       | n/a      | n/a       | 138          | \$12,410,810         |
| 2019         | 13        | 33         | 36         | 16         | 16        | 5         | n/a       | 0         | 0         | n/a       | n/a      | n/a       | 119          | \$8,731,454          |
| 2020         | 15        | 49         | 41         | 14         | 12        | 13        | 15        | 0         | 0         | n/a       | n/a      | n/a       | 159          | \$14,462,186         |
| 2021         | 10        | 47         | 15         | 14         | 3         | 8         | 17        | 8         | 9         | n/a       | n/a      | n/a       | 131          | \$13,870,444         |
| 2022         | 8         | 26         | 10         | 10         | 4         | 3         | 11        | 5         | 6         | 17        | 6        | 12        | 118          | \$44,628,511         |
| <b>Total</b> | <b>80</b> | <b>283</b> | <b>237</b> | <b>114</b> | <b>62</b> | <b>39</b> | <b>43</b> | <b>30</b> | <b>24</b> | <b>17</b> | <b>6</b> | <b>12</b> | <b>947</b>   | <b>\$119,526,571</b> |

**Table 16.2. Number of BIA Tribal Climate Resilience Funding Awards Per Region**Awards made by the BIA Tribal Climate Resilience program to fund Tribal resilience actions. Source: BIA.<sup>195</sup>

| Year          | Alaska     | Eastern   | Eastern Oklahoma | Great Plains | Midwest   | Navajo   | Northwest  | Pacific    | Rocky Mountain | Southern Plains | Southwest | Western   | Total      | Total \$             |
|---------------|------------|-----------|------------------|--------------|-----------|----------|------------|------------|----------------|-----------------|-----------|-----------|------------|----------------------|
| 2011          | 2          | 1         | 1                | 0            | 2         | 1        | 3          | 1          | 0              | 1               | 1         | 2         | 15         | \$327,637            |
| 2012          | 0          | 0         | 0                | 0            | 0         | 0        | 0          | 0          | 0              | 0               | 0         | 0         | 0          | \$0                  |
| 2013          | 1          | 0         | 1                | 0            | 5         | 0        | 4          | 3          | 0              | 1               | 1         | 3         | 19         | \$694,731            |
| 2014          | 7          | 2         | 4                | 3            | 6         | 0        | 8          | 9          | 1              | 3               | 0         | 1         | 44         | \$2,286,316          |
| 2015          | 19         | 7         | 4                | 2            | 7         | 2        | 47         | 18         | 3              | 3               | 6         | 3         | 121        | \$13,322,972         |
| 2016          | 15         | 2         | 3                | 2            | 3         | 2        | 33         | 14         | 1              | 5               | 1         | 2         | 83         | \$8,791,510          |
| 2017/<br>2018 | 44         | 6         | 5                | 2            | 5         | 1        | 45         | 9          | 5              | 4               | 6         | 6         | 138        | \$12,410,810         |
| 2019          | 62         | 7         | 1                | 2            | 2         | 1        | 25         | 14         | 0              | 0               | 4         | 1         | 119        | \$8,731,454          |
| 2020          | 62         | 11        | 5                | 4            | 6         | 0        | 29         | 24         | 2              | 7               | 4         | 5         | 159        | \$14,462,186         |
| 2021          | 59         | 7         | 3                | 2            | 1         | 1        | 23         | 25         | 1              | 2               | 3         | 4         | 131        | \$13,870,444         |
| 2022          | 43         | 2         | 4                | 2            | 4         | 1        | 30         | 16         | 5              | 3               | 1         | 7         | 118        | \$44,628,511         |
| <b>Total</b>  | <b>314</b> | <b>45</b> | <b>31</b>        | <b>19</b>    | <b>41</b> | <b>9</b> | <b>247</b> | <b>133</b> | <b>18</b>      | <b>29</b>       | <b>27</b> | <b>34</b> | <b>947</b> | <b>\$119,526,571</b> |

Some planning processes deliberately start with place-based Indigenous Knowledge. For example, some adaptation plans involve interviews with knowledge keepers to determine key ecological indicators for adaptation strategies, such as the restoration of fire-adapted ecosystems, cultural burning, and strategies for maintaining biodiverse crops and culturally important species and landscapes (KMs 21.4, 28.5).<sup>6,80,87,196</sup> In terms of values, some Tribal energy projects emphasize renewable energy as connected to elder care by lowering the cost of household energy for elders.<sup>67</sup> Indigenous-led planning processes can emphasize that rights to self-determination should govern decision-making about climate and energy.<sup>6,38,197</sup>

Climate change responses guided by Indigenous Knowledges and values include restoration efforts, food security initiatives (Boxes 30.3, 30.4), climate emergency response systems, and innovative communication mediums. Examples include the Tribal Climate Adaptation Menu<sup>80</sup> and Indigenous-supported efforts, such as those of the Karuk Tribe<sup>198</sup> to ensure that the State of California has permitting requirements for vegetation management to reduce fire hazards through prescribed burns that have cultural value. In 2021, the Onondaga Nation completed construction of the Tsha' Thoñswatha' firehouse and community hall, which is the Nation's first triple-net-zero (energy, water, and waste) emergency-management facility (Figure 16.7).<sup>199</sup>

## Tsha' Thoñswatha' Firehouse and Community Hall



**The Tsha' Thoñswatha' firehouse and community hall in the Onondaga Nation relies on renewable energy and meets a net-zero standard of energy use.**

**Figure 16.7.** The firehouse was designed in collaboration with the community and reflects the Onondaga Nation's language and culture. Photo credits: © Kelsey Leonard, University of Waterloo.

There are many other examples of Indigenous Peoples' climate adaptation efforts. The College of Menominee Nation developed a community-engaged phenology research project to understand changes in plants on their reservation and also developed the culturally grounded Menominee Theoretical Model of Sustainability (Figure 16.8)<sup>51,200</sup> to guide research, education, and community engagement. Other efforts include Indigenous-led blue carbon ecosystem restoration, such as through kelp farming off the coasts of Long Island and Alaska (Focus on Blue Carbon). The Swinomish Indian Tribal Community of Washington, among others, is building clam gardens as a climate adaptation strategy to combat sea level rise and ocean acidification and to bolster food security.<sup>201</sup> Native Hawaiians are restoring their agricultural systems, given the ability of native species to adapt to the changing climate.<sup>64</sup> Land-based and culturally grounded healing initiatives support Indigenous communities' resilience.<sup>17,202,203</sup> Indigenous self-determination protects the capacities of Indigenous People to practice stewardship and caretaking relationships with their land.<sup>204,205</sup> Indigenous Knowledge and values guide strategies focused on traditional species and the significance of their ecological relationships, the revitalization of management practices that were suppressed by the US Government, the uplifting of Indigenous cultural practices as a way to motivate people to engage,<sup>79,206</sup> and the well-being of community members who face severe risks and negative impacts from climate change.<sup>207</sup>

## Climate Initiatives at College of Menominee Nation

a) Phenology station sign on the College of Menominee Nation campus



b) Menominee Theoretical Model of Sustainability



At the College of Menominee Nation, Indigenous Knowledge guides climate change response.

**Figure 16.8.** (a) The photo shows a phenology station sign at the College of Menominee Nation in Keshena, Wisconsin. The phenology project explores the effects of climate change on the reservation forest and community over time. The college has also developed the Menominee Theoretical Model of Sustainability (b), which guides climate change research, education, and community outreach and is an example of Indigenous leadership for climate adaptation. Photo credit: (a) © Thomas R. Kenote, College of Menominee Nation Sustainable Development Institute. Source: (b) The Menominee Theoretical Model of Sustainability (MTMS): 2021 Schwitzer Redesign—3D Version (adapted from Dockry et al. 2016<sup>200</sup>).

## Youth-Led Climate Movements

Youth-led movements (both US and international) continue to grow in number through the formation and engagement of organizations and coalitions, including the Climate Justice Alliance and the Indigenous Environmental Network, as well as through participation at the United Nations Framework Convention on Climate Change (UNFCCC) conferences of the parties (including the Paris Agreement).<sup>208</sup> The International Indigenous Youth Council was instrumental in leading the resistance against the proliferation of fossil fuel colonialism in Oceti Sakowin, historically known to some as the Sioux Nation.<sup>209,210</sup> Climate change was a key topic on the agenda at the February 2022 Native Youth Leadership Summit, held by The Youth Commission of the National Congress of American Indians.<sup>211</sup> Earth Ambassadors of United National Indian Tribal Youth Inc. have developed projects ranging from seed banking to waste management to address climate injustices facing their Indigenous communities.<sup>212</sup> Tribal colleges and universities are also engaged in building community resilience and supporting the next generation of climate leaders.<sup>156,213,214,215</sup> Another empowering youth-led initiative is Mni Ki Wakan, which is working towards Indigenous-led water justice for all.<sup>216</sup>

## Art and Storytelling for Climate Communication

Since time immemorial, Indigenous Peoples have shared Traditional Knowledges and historical context through arts and storytelling. In modern times, they are mobilizing innovative and diverse media, including visual and performance art,<sup>217</sup> film,<sup>218,219</sup> podcasts,<sup>220</sup> radio ([www.nativenews.net](http://www.nativenews.net)), and other forms of story-

telling, to communicate firsthand experiences of climate impacts and adaptation initiatives for Indigenous lifeways. Indigenous approaches to communicating about climate change are integral to the expression of cultural lifeways, sharing culturally appropriate examples of climate adaptation, and discussing Indigenous approaches to climate planning.

### ***Local, Inter-Tribal, and National Collaboration***

Indigenous Peoples' responses to climate change include collaborative environmental stewardship, protection, and coordination with other Tribes and Indigenous Peoples,<sup>34</sup> as well as with federal, state, and local governments, private organizations, and businesses (KM 12.4). In 2020 a collaborative Tribal-led nationwide effort was undertaken to review the Congressional Action Plan on the climate crisis<sup>221</sup> and to provide information, tools, and strategies for Tribal leaders to use in their advocacy on behalf of Indigenous Peoples.<sup>18</sup> For example, Tribes have coordinated with federal forests on regional fire management as a climate adaptation strategy.<sup>6</sup> Tribes and Indigenous Peoples continue to partner with each other to make unified statements and reports that can inform national and international climate policy and actions.<sup>80,124,221</sup> Inter-Tribal collaborations have engaged in regional monitoring of safety standards for shellfish and other resources.<sup>6</sup> Inter-Tribal consortia, such as the Midwest Tribal Energy Resources Association and the National Tribal Emergency Management Council, have fostered coordinated efforts to support the needs of individual Tribes. Indigenous nonprofit organizations, such as the NDN Collective, have produced funding programs and resources for Indigenous community-based organizations to access guidance and funds for renewable energy. Organizations such as the Indigenous Environmental Network have resisted the growth of the fossil fuel sector nationally.<sup>222</sup> Indigenous Peoples have participated in the conferences of parties of the UNFCCC (including the Paris Agreement), despite constraints to participation.<sup>223</sup> In 2019, the United Nations Educational, Scientific and Cultural Organization hosted a regional workshop titled "Mobilizing Indigenous and Local Knowledge Solutions: Addressing Climate Impacts and Vulnerabilities—A Perspective from the Caribbean Region," opening a dialogue and knowledge exchange across sectors, nations, and territories, including the US Caribbean.<sup>191</sup>

# Traceable Accounts

## *Process Description*

The authors of the Tribes and Indigenous Peoples chapter were selected based on their academic and government track records as experts on the topic of Indigenous Peoples and climate change in the US. Each author has a regional area of expertise in addition to expertise more broadly. The author team met virtually each week to discuss and cowrite the chapter. There was a weekly email update from the chapter lead (CL) to set the agenda for each weekly meeting five days in advance. The CL initiated discussion about the outline of each element of the chapter and received feedback from the chapter authors through email and through meetings. Revisions were made to the outline until agreement was achieved. The same process was initiated for the written content of the chapter and for each figure. After authors had contributed text, bibliographic references, and information and concepts pertaining to figures, the CL sought consensus through iterative communications over email and in meetings.

The Tribes and Indigenous Peoples chapter hosted one public meeting specifically on the chapter. The public comments from the meeting were reviewed and vetted for inclusion in the chapter. The chapter received comments from federal agencies, which the author team also responded to.

The author team has reviewed and included information from different types of credible sources relating to Indigenous Peoples and climate change. First, peer-reviewed scientific and academic literature on the topic was reviewed in its relationship to the US and its territories. Second, reports on the topic were reviewed if they met certain standards. They included the following: reports produced by Tribal governments, the US federal government, and state and local governments; reports produced by Indigenous organizations that have gone through a quality review process relevant to the particular information featured in the reports; and testimonies and eyewitness accounts by Indigenous People with climate change information. In cases where testimony and eyewitness accounts were used, appropriate recognition of the nature of the information was included in the Traceable Accounts.

Tribes and Indigenous Peoples in the US represent more than 700 communities and Tribal Nations that span the entire country and its territories. The communities encompass diverse regions and ecosystems. They differ culturally and have different relationships with the US, states, territories, and local governments. While different culturally, socially, and politically, Indigenous Peoples share comparable social circumstances. The circumstances include Indigenous Peoples' existence in what is now US territory prior to the establishment of the country; their distinct cultures; their having subsistence practices as a dimension of their economies, depending on the community or people; their living in lands today that are smaller than their ancestral land bases; and, depending on the community or people, their having endured environmental risks stemming from pollution and other environmental injustices, low investment in infrastructure by the US Government, and barriers to economic development. The social circumstances of Indigenous Peoples formed the basis of how the author team assessed information in this chapter. It is not possible to assess source material for more than 700 communities and peoples that are distinct ecologically, culturally, territorially, and politically. For this reason, the author team assessed as extensive a literature base as possible and drew on credible information to report information in the chapter that is relevant to the social circumstances of Indigenous Peoples. Throughout the chapter, the author team deliberately referenced Key Messages from other chapters relevant to Tribes and Indigenous Peoples; at the same time, the text is explicit that there is extreme differentiation across Indigenous Peoples.

## Key Message 16.1

# Indigenous Peoples Face Risks to Well-Being and Livelihoods from Climate Change and Barriers to Energy Sovereignty

### Description of Evidence Base

There is a diverse body of peer-reviewed academic literature, reports, testimony, and eyewitness accounts that disclose information about how Indigenous Peoples are impacted by climate change, including risks and current harms and costs. While climate change may present opportunities for certain populations, the current literature on this topic suggests strongly that Indigenous Peoples are currently facing increasing risks and burdensome harms and costs. The Fourth National Climate Assessment (NCA4)<sup>224</sup> reviewed literature since 2014 on this topic. NCA4 had three Key Messages in the Tribes and Indigenous Peoples chapter, focused on Indigenous Peoples facing risks, harms, and costs tied to their economies and cultures, their health, and their capacity to respond to disasters and natural hazards. This Assessment took into consideration the literature published since NCA4—from 2018 onward. Additional literature was found as well on topics not covered in NCA4, including energy systems and COVID-19. The Status of Tribes and Climate Change (STACC) Report<sup>6</sup> and the Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) were published in 2021 and 2022, respectively. Both include a thorough peer-reviewed assessment of climate change issues that Indigenous Peoples have faced in the context of the US since 2018. The two reports are comprehensive but not exhaustive of important climate change impacts that Indigenous Peoples face relating to climate and energy. There are approximately 460 million Indigenous Peoples throughout the world.

### Major Uncertainties and Research Gaps

For this topic, the author team had the capacity to analyze quality information covering numerous Tribes and Indigenous Peoples. However, the available literature does not come anywhere close to covering the total population of Tribes and Indigenous Peoples. As a result, there are hundreds of communities whose relationship to climate change is not covered in this chapter.

### Description of Confidence and Likelihood

*Very high confidence* is attributed to this Key Message for at least two reasons. First, one of the primary evidence bases being built on is the NCA. Since 2000, greater evidence has been analyzed about the vulnerability of Indigenous Peoples to climate change. NCA3 and NCA4 represented substantive advances in the documentation of this evidence. Since NCA4, other major scientific reports and empirically rigorous reports and technical contributions, including the reports of the IPCC<sup>15</sup> and the STACC Report,<sup>6</sup> have added further to the documented evidence. Second, scientists, Tribal staff, and nonprofit professionals have increased their publication of rigorous information on Indigenous vulnerability, and US Government agencies have advanced in their documentation of steps diverse Indigenous Peoples are taking to address climate change.



## Key Message 16.2

### Self-Determination Is Key to Indigenous Peoples' Resilience to Climate Change

#### Description of Evidence Base

The evidence base is an assemblage of sources that range from documents produced by Indigenous Peoples themselves to academic literature. This diverse literature on the impacts of climate change and the responses of Indigenous Peoples to climate change discloses information about the conditions that affect Indigenous Peoples' options for adapting to and mitigating climate change. Domestic Policy Council (2021),<sup>139</sup> NCAI (2019b),<sup>4</sup> and the US Commission on Civil Rights (2018)<sup>141</sup> provide information about Indigenous capacities to exercise self-determination, including critical information about infrastructural, financial, and administrative capacities. Warner et al. (2020)<sup>14</sup> and Washburn (2021)<sup>147</sup> offer important information about how policies that support self-determination in the form of comanagement and nation-to-nation consultation are important strategies for responding to climate change and other environmental issues. The emerging literature on data governance is well documented in David-Chavez et al. (2019)<sup>161</sup> and Carroll et al. (2020).<sup>165</sup>

#### Major Uncertainties and Research Gaps

Many of the conditions that create barriers for Indigenous Peoples in relation to climate change also affect other important areas, including political rights, education, health, and criminal justice. There continue to be gaps in research regarding how many total communities and peoples face particular climate challenges. However, some of the policies, governance mechanisms, and rights that are documented as barriers to Indigenous responsiveness to climate change pertain widely to Indigenous Peoples. There are also gaps in terms of being able to fully account for all of the adaptation and mitigation activities and processes that Indigenous Peoples are a part of or leading.

#### Description of Confidence and Likelihood

*Very high confidence* is attributed to the statement that options for responding to climate change can be enhanced through support for self-determined decision-making. Within and beyond the available literature on climate change, the most common guidance from Indigenous and non-Indigenous sources is that Indigenous sovereignty, self-determination, and (where possible) self-governance are integral to supporting Indigenous efforts to address climate change. The author team discovered no literature claiming that US paternalism or domination of Indigenous Peoples is a pathway for mitigating climate risks and establishing renewable energy. *Very high confidence* is attributed to the statement that various institutions and related policy undermine or erode sovereignty and self-determination of Indigenous Peoples, negatively impacting opportunities for climate resilience. The literature, both since 2018 and before, depicts extensively and acutely the sources of barriers for Indigenous Peoples to address climate change and energy issues. There are no barriers that were discovered that operate independently of the influence of US colonialism on Indigenous Peoples. The final statement, on the relationship between federal and state support of Indigenous Peoples' self-determination, is assessed at *high confidence*. The available information and evidence demonstrate ways that such support can improve Indigenous self-determination; however, such improvements depend on how federal and state support is administered, such as avoiding measures that would foster problematic forms of dependence that would actually counteract the right to self-determination.

## Key Message 16.3

### Indigenous Leadership Guides Climate Change Response

#### Description of Evidence Base

The evidence base includes some academic and scientific articles in addition to many reports from Indigenous Peoples on how they are responding to climate change. This Key Message is limited to describing known information about what Indigenous Peoples are doing in response to climate change. The reviewed literature, which is extensive, provides information on a topic area that is little represented in scientific assessments and provides information about climate change adaptation and mitigation measures that Indigenous Peoples have taken recently. In the NCA4 Tribe and Indigenous Peoples chapter,<sup>29</sup> the Bureau of Indian Affairs and the author team for that chapter created a graphic representation (Figure 15.1 in NCA4)<sup>29</sup> of actions that Indigenous Peoples have taken to respond to climate change. The chapter text itself did not devote a Key Message to describing the responses. That is, the chapter did not have focused treatment on the topic of how Indigenous Peoples are responding to climate change. The Key Message for the current chapter includes additions to the graphic, which is featured again in updated form. The author team searched extensively for cases of Indigenous responses to climate change, and this Key Message reflects the results of what the author team learned about the array of information and evidence. The STACC Report<sup>6</sup> provides dozens of small case studies of Indigenous Peoples' actions, and the Indigenous Environmental Network and Oil Change International report on mitigation provides cases of Indigenous advocacy against certain drivers of human-caused climate change.<sup>222</sup>

#### Major Uncertainties and Research Gaps

Given that few climate change studies and scientific assessments take up and synthesize Tribal and Indigenous responses to climate change, this is one of the first assessments to describe the diverse array of responsive actions taking place. While the evidence base is extensive, there are certainly more responsive actions that Indigenous Peoples are engaged in that have not been published either at all or in a form that can be referenced in NCA. It is not known how many more cases there are. Indigenous Peoples, whether working through governments, organizations, or other entities, sometimes may not publish reports or publicly document the actions that they are taking. In other cases, documentation of an action may not be intended to be publicly referenced by its authors. And some publications, regardless of their quality, may not adhere with the requirements NCA has established for its evidence base.

#### Description of Confidence and Likelihood

The Key Message attributes *high confidence* to the evidence that Indigenous Peoples are involved in diverse strategies for climate adaptation and mitigation and that Indigenous Knowledge, values, and rights shape many of the strategies. The literature on climate change demonstrates the importance of relevant and trusted leaders in orchestrating solutions that communities and staff will support. Indigenous leaders, Tribal governments, and Indigenous organizations have such relevance and potential for trustworthy leadership. Given that the legal, cultural, social, and political circumstances of Indigenous Peoples vary widely, the solutions that Indigenous Peoples are pursuing are unique in that they are tailored to such circumstances. There were no discovered instances where Indigenous Peoples' solutions were not so tailored.

## References

1. Kaholokula, J.K.A., S.K. Okamoto, and B.W.K. Yee, 2019: Special issue introduction: Advancing Native Hawaiian and other Pacific Islander health. *Asian American Journal of Psychology*, **10** (3), 197–205. <https://doi.org/10.1037/aap0000167>
2. Knopp, J.A., B. Levenstein, A. Watson, I. Ivanova, and J. Lento, 2022: Systematic review of documented Indigenous Knowledge of freshwater biodiversity in the circumpolar Arctic. *Freshwater Biology*, **67** (1), 194–209. <https://doi.org/10.1111/fwb.13570>
3. NCAI, 2019: Calling on the Department of Interior to Adopt Tribal Energy Resource Agreement Regulations That Respect Tribal Sovereignty and Self-Determination. Resolution #ABQ-19-032. National Congress of American Indians. [https://www.ncai.org/attachments/resolution\\_kjpsfdqioifcbwjfkcsdlfhgommyuyxetoshkgkdmwtxjuauceu\\_abq-19-032.pdf](https://www.ncai.org/attachments/resolution_kjpsfdqioifcbwjfkcsdlfhgommyuyxetoshkgkdmwtxjuauceu_abq-19-032.pdf)
4. NCAI, 2019: Tribal Nations and the United States. National Congress of American Indians, Washington, DC. <https://www.ncai.org/about-tribes>
5. Petzold, J., N. Andrews, J.D. Ford, C. Hedemann, and J.C. Postigo, 2020: Indigenous knowledge on climate change adaptation: A global evidence map of academic literature. *Environmental Research Letters*, **15** (11), 113007. <https://doi.org/10.1088/1748-9326/abb330>
6. STACCCWG, 2021: The Status of Tribes and Climate Change Report. Marks-Marino, D., Ed. Northern Arizona University, Institute for Tribal Environmental Professionals, Flagstaff, AZ. <http://nau.edu/stacc2021>
7. Haaland, D. and T.J. Vilsack, 2021: Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters. Joint Secretarial Order 3403. U.S. Department of Interior and U.S. Department of Agriculture, 5 pp. <https://www.doi.gov/sites/doi.gov/files/elips/documents/so-3403-joint-secretarial-order-on-fulfilling-the-trust-responsibility-to-indian-tribes-in-the-stewardship-of-federal-lands-and-waters.pdf>
8. Sams III, C.F., 2022: Tribal Co-Management of Federal Lands. U.S. Department of the Interior, Office of Congressional and Legislative Affairs, accessed May 23, 2023. <https://www.doi.gov/ocl/tribal-co-management-federal-lands>
9. ANCSA, n.d.: Overview of Entities Operating in the Twelve Regions. ANCSA Regional Association, Anchorage, AK, accessed July 18, 2023. <https://ancsaregional.com/overview-of-entities/>
10. Stewart, H., 2022: Sovereigns of no territory: Alaska Natives, ANCSA, and tribal self-determination. *Arizona Journal of Environmental Law & Policy*, **12** (3), 247–269. <https://static1.squarespace.com/static/6307d452a995602a1c242475/t/63d8fc5aa339c47a5d56fe69/1675164762913/Sovereigns+of+No+Territory.pdf>
11. Riley, J.K., C. Akamu, and L. Riley, 2023: Ēwe hānau o ka ‘āina: A policy review focused on Hawai‘i’s public land trust. *Land*, **12** (1). <https://doi.org/10.3390/land12010048>
12. Sproat, D.K., 2016: An Indigenous people’s right to environmental self-determination: Native Hawaiians and the struggle against climate change devastation. *Stanford Environmental Law Journal*, **35** (2). <https://law.stanford.edu/publications/an-indigenous-peoples-right-to-environmental-self-determination-native-hawaiians-and-the-struggle-against-climate-change-devastation/>
13. The White House, 2021: Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships. The White House, Washington, DC, January 26, 2021. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/26/memorandum-on-tribal-consultation-and-strengthening-nation-to-nation-relationships/>
14. Warner, E.K., K. Lynn, and K. Whyte, 2020: Changing consultation. *UCD Law Review*, **54**, 1127. [https://lawreview.law.ucdavis.edu/issues/54/2/articles/files/54-2\\_warner\\_lynn\\_whyte.pdf](https://lawreview.law.ucdavis.edu/issues/54/2/articles/files/54-2_warner_lynn_whyte.pdf)
15. IPCC, 2022: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Pörtner, H.-O., D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, and B. Rama, Eds. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp. <https://doi.org/10.1017/9781009325844>

16. Chisholm Hatfield, S. and M.M. Dalton, 2020: Integrating Traditional Ecological Knowledge and Western Climate science to enhance climate resilience of tribal communities. In: *AGU Fall Meeting Abstracts*. American Geophysical Union. <https://ui.adsabs.harvard.edu/abs/2020agufmsy027..07c>
17. Ford, J.D., N. King, E.K. Galappaththi, T. Pearce, G. McDowell, and S.L. Harper, 2020: The resilience of Indigenous peoples to environmental change. *One Earth*, **2** (6), 532–543. <https://doi.org/10.1016/j.oneear.2020.05.014>
18. BIA, 2020: The Unmet Infrastructure Needs of Tribal Communities and Alaska Native Villages in Process of Relocating to Higher Ground as a Result of Climate Change. Department of Interior, Bureau of Indian Affairs, Albuquerque, NM. <https://www.bia.gov/news/unmet-infrastructure-needs-tribal-communities-and-alaska-native-villages-process-relocation>
19. Crepelle, A., 2018: Standing Rock in the swamp: Oil, the environment, and the United Houma Nation's struggle for federal recognition. *Loyola Law Review*, **64**, 141–186. <https://dspace.loyno.edu/xmlui/handle/123456789/61>
20. Farrell, J., P.B. Burow, K. McConnell, J. Bayham, K. Whyte, and G. Koss, 2021: Effects of land dispossession and forced migration on Indigenous peoples in North America. *Science*, **374** (6567), 4943. <https://doi.org/10.1126/science.abe4943>
21. Fixico, D.L., 2012: *The Invasion of Indian Country in the Twentieth Century American Capitalism and Tribal Natural Resources*, 2nd ed. University Press of Colorado, 278 pp. <http://www.jstor.org/stable/j.ctt46nvt7>
22. Frain, S.C., 2018: 'Make America Secure': Media, militarism, and climate change in the Marianas Archipelago. *Pacific Journalism Review*, **24** (2), 218–240. <https://doi.org/10.24135/pjr.v24i2.407>
23. Goodyear-Kaopua, N., I. Hussey, and E.K.A. Wright, Eds., 2014: *A Nation Rising: Hawaiian Movements for Life, Land, and Sovereignty*. Duke University Press, Durham, NC, 416 pp. <https://www.dukeupress.edu/a-nation-rising>
24. Kojola, E., 2019: Bringing back the mines and a way of life: Populism and the politics of extraction. *Annals of the American Association of Geographers*, **109** (2), 371–381. <https://doi.org/10.1080/24694452.2018.1506695>
25. Liboiron, M., 2021: *Pollution Is Colonialism*. Duke University Press, Durham, NC, 216 pp. <https://www.dukeupress.edu/pollution-is-colonialism>
26. Perez, C.S., 2021: Thinking (and feeling) with Anthropocene (Pacific) islands. *Dialogues in Human Geography*, **11** (3), 429–433. <https://doi.org/10.1177/20438206211017453>
27. Spencer, M.S., T. Fentress, A. Touch, and J. Hernandez, 2020: Environmental justice, Indigenous knowledge systems, and Native Hawaiians and other Pacific Islanders. *Human Biology*, **92** (1), 45–57. <https://doi.org/10.13110/humanbiology.92.1.06>
28. Bisbal, G.A. and C.E. Jones, 2019: Responses of Native American cultural heritage to changes in environmental setting. *AlterNative: An International Journal of Indigenous Peoples*, **15** (4), 359–367. <https://doi.org/10.1177/1177180119847726>
29. Jantarasami, L.C., R. Novak, R. Delgado, E. Marino, S. McNeeley, C. Narducci, J. Raymond-Yakoubian, L. Singletary, and K.P. Whyte, 2018: Ch. 15. Tribes and Indigenous Peoples. In: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds. U.S. Global Change Research Program, Washington, DC, USA, 572–603. <https://doi.org/10.7930/nca4.2018.ch15>
30. Marks-Marino, D., 2021: The Seminole Tribe of Florida. Northern Arizona University, Institute for Tribal Environmental Professionals, Climate Change Program. [https://www7.nau.edu/itep/main/tcc/tribes/gc\\_seminole](https://www7.nau.edu/itep/main/tcc/tribes/gc_seminole)
31. Sharp, F., 2019: Quinault Indian Nation Testimony, United States House of Representatives Committee on Natural Resources, Subcommittee on Water, Oceans, and Wildlife. Quinault Indian Nation, 5 pp. <https://www.congress.gov/116/meeting/house/109853/witnesses/HHRG-116-II13-Wstate-SharpF-20190725.pdf>
32. Thomas, K., R.D. Hardy, H. Lazrus, M. Mendez, B. Orlove, I. Rivera-Collazo, J.T. Roberts, M. Rockman, B.P. Warner, and R. Winthrop, 2019: Explaining differential vulnerability to climate change: A social science review. *WIREs Climate Change*, **10** (2), e565. <https://doi.org/10.1002/wcc.565>

33. Weiskopf, S.R., M.A. Rubenstein, L.G. Crozier, S. Gaichas, R. Griffis, J.E. Halofsky, K.J. Hyde, T.L. Morelli, J.T. Morisette, R.C. Muñoz, A.J. Pershing, D.L. Peterson, R. Poudel, M.D. Staudinger, A.E. Sutton-Grier, L. Thompson, J. Vose, J.F. Weltzin, and K.P. Whyte, 2020: Climate change effects on biodiversity, ecosystems, ecosystem services, and natural resource management in the United States. *Science of The Total Environment*, **733**, 137782. <https://doi.org/10.1016/j.scitotenv.2020.137782>
34. Maldonado, J., D. Antrobus, C. Comardelle, S.R. Cox, L. Laukea, C. Jones, P. Keys, H. Mullen, M. Neale, and D. Sambo Dorough, 2021: Ch. 10. Protection-in-place & community-led relocation. In: *Status of Tribes and Climate Change Report*. Marks-Marino, D., Ed. Institute for Tribal Environmental Professionals, 241–259. <http://nau.edu/stacc2021>
35. de Onís, C.M., 2018: Energy colonialism powers the ongoing unnatural disaster in Puerto Rico. *Frontiers in Communication*, **3**, 2. <https://doi.org/10.3389/fcomm.2018.00002>
36. Kronk, E.A., 2009: Alternative energy development in Indian country: Lighting the way for the seventh generation. *Idaho Law Review*, **46** (2). <http://ssrn.com/abstract=2146189>
37. Lee, D., C. Schelly, V.S. Gagnon, S. Smith, and S. Tiwari, 2023: Preferences and perceived barriers to pursuing energy sovereignty and renewable energy: A tribal nations perspective. *Energy Research & Social Science*, **97**, 102967. <https://doi.org/10.1016/j.erss.2023.102967>
38. Sovacool, B.K., S.E. Bell, C. Daggett, C. Labuski, M. Lennon, L. Naylor, J. Klinger, K. Leonard, and J. Firestone, 2023: Pluralizing energy justice: Incorporating feminist, anti-racist, Indigenous, and postcolonial perspectives. *Energy Research & Social Science*, **97**, 102996. <https://doi.org/10.1016/j.erss.2023.102996>
39. Zimmerman, M.G. and T.G. Reames, 2021: Where the wind blows: Exploring barriers and opportunities to renewable energy development on United States tribal lands. *Energy Research & Social Science*, **72**, 101874. <https://doi.org/10.1016/j.erss.2020.101874>
40. Jorgensen, M. and J. Timeche, 2021: Ch. 7. Native America x rural America: Tribal nations as key players in regional rural economies. In: *Investing in Rural Prosperity*. Saint Louis Fed Eagle, Federal Reserve Bank of St. Louis. <https://nni.arizona.edu/publications/native-america-x-rural-america-tribal-nations-key-players-regional-rural-economies>
41. Kokodoko, M., 2022: Enhanced Tool Maps Critical Role of Native American Financial Institutions. Federal Reserve Bank of Minneapolis, Center for Indian Country Development. <https://www.minneapolisfed.org/article/2022/enhanced-tool-maps-critical-role-of-native-american-financial-institutions>
42. Angel, J., C. Swanson, B.M. Boustead, K.C. Conlon, K.R. Hall, J.L. Jorns, K.E. Kunkel, M.C. Lemos, B. Lofgren, T.A. Ontl, J. Posey, K. Stone, G. Takle, and D. Todey, 2018: Ch. 21. Midwest. In: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Reidmiller, D.R., C.W. Avery, D. Easterling, K. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds. U.S. Global Change Research Program, Washington, DC, USA, 872–940. <https://doi.org/10.7930/nca4.2018.ch21>
43. Cold, H.S., T.J. Brinkman, C.L. Brown, T.N. Hollingsworth, D.R.N. Brown, and K.M. Heeringa, 2020: Assessing vulnerability of subsistence travel to effects of environmental change in Interior Alaska. *Ecology and Society*, **25** (1). <https://doi.org/10.5751/es-11426-250120>
44. Dupigny-Giroux, L.A., E.L. Mecray, M.D. Lemcke-Stampone, G.A. Hodgkins, E.E. Lentz, K.E. Mills, E.D. Lane, R. Miller, D.Y. Hollinger, W.D. Solecki, G.A. Wellenius, P.E. Sheffield, A.B. MacDonald, and C. Caldwell, 2018: Ch. 18. Northeast. In: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Reidmiller, D.R., C.W. Avery, D. Easterling, K. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds. U.S. Global Change Research Program, Washington, DC, USA, 669–742. <https://doi.org/10.7930/nca4.2018.ch18>
45. Green, K.M., A.H. Beaudreau, M.H. Lukin, and L.B. Crowder, 2021: Climate change stressors and social-ecological factors mediating access to subsistence resources in Arctic Alaska. *Ecology and Society*, **26** (4). <https://doi.org/10.5751/es-12783-260415>
46. Herman-Mercer, N.M., M. Laituri, M. Massey, E. Matkin, R. Toohey, K. Elder, P.F. Schuster, and E. Mutter, 2019: Vulnerability of subsistence systems due to social and environmental change: A case study in the Yukon-Kuskokwim Delta, Alaska. *Arctic*, **72** (3), 215–335. <https://doi.org/10.14430/arctic68867>
47. ICC Alaska, 2020: Food Sovereignty and Self-Governance: Inuit Role in Managing Arctic Marine Resources. Inuit Circumpolar Council Alaska, Anchorage, AK. <https://www.inuitcircumpolar.com/project/food-sovereignty-and-self-governance-inuit-role-in-managing-arctic-marine-resources/>

48. Inuit Tapiriit Kanatami, 2019: National Inuit Climate Change Strategy. Inuit Tapiriit Kanatami. [https://www.itk.ca/wp-content/uploads/2019/06/ITK\\_Climate-Change-Strategy\\_English.pdf](https://www.itk.ca/wp-content/uploads/2019/06/ITK_Climate-Change-Strategy_English.pdf)
49. Kapp, A., 2019: Aroostook Band of Micmac Indians. Northern Arizona University, Institute for Tribal Environmental Professionals, 9 pp. [https://www7.nau.edu/itep/main/tcc/tribes/ne\\_micmacs](https://www7.nau.edu/itep/main/tcc/tribes/ne_micmacs)
50. Kapp, A., 2019: The La Jolla Band of Luiseño Indians, September, 2019. Northern Arizona University, Institute for Tribal Environmental Professionals, Climate Change Program, 3 pp. [https://www7.nau.edu/itep/main/tcc/tribes/sw\\_lajolla](https://www7.nau.edu/itep/main/tcc/tribes/sw_lajolla)
51. Kenote, T. 2020: Indigenous Phenology: An Interdisciplinary Case Study on Indigenous Phenological Knowledge on the Menominee Nation Forest. Master of Science, University of Minnesota Digital Conservancy, 91 pp. <https://hdl.handle.net/11299/216076>
52. Markon, C., S. Gray, M. Berman, L. Eerkes-Medrano, T. Hennessy, H. Huntington, J. Littell, M. McCammon, R. Thoman, and S. Trainor, 2018: Ch. 26. Alaska. In: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Reidmiller, D.R., C.W. Avery, D. Easterling, K. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds. U.S. Global Change Research Program, Washington, DC, USA, 1185–1241. <https://doi.org/10.7930/nca4.2018.ch26>
53. May, K., C. Luce, J. Casola, M. Chang, J. Cuhaciyani, M. Dalton, S. Lowe, G. Morishima, P. Mote, A. Petersen, G. Roesch-McNally, and E. York, 2018: Ch. 24. Northwest. In: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Reidmiller, D.R., C.W. Avery, D. Easterling, K. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds. U.S. Global Change Research Program, Washington, DC, USA, 1036–1100. <https://doi.org/10.7930/nca4.2018.ch24>
54. Ristroph, E.B., 2019: Avoiding maladaptations to flooding and erosion: A case study of Alaska Native villages. *Ocean and Coastal Law Journal*, **24** (2), 110–135. <https://digitalcommons.maine.edu/oclj/vol24/iss2/2>
55. Dockry, M.J. and S.J. Hoagland, 2017: A special issue of the *Journal of Forestry*—Tribal forest management: Innovations for sustainable forest management. *Journal of Forestry*, **115** (5), 339–340. <https://doi.org/10.5849/jof-2017-040>
56. Herman-Mercer, N.M., R.A. Loehman, R.C. Toohey, and C. Paniyak, 2020: Climate- and disturbance-driven changes in subsistence berries in coastal Alaska: Indigenous Knowledge to inform ecological inference. *Human Ecology*, **48** (1), 85–99. <https://doi.org/10.1007/s10745-020-00138-4>
57. Hedden-Nicey, D.R. and L.K. Caldwell, 2020: Indigenous rights and climate change: The influence of climate change on the quantification of reserved instream water rights for American Indian tribes. *Utah Law Review*, **2020** (3). <https://doi.org/10.26054/0d-6t19-bfke>
58. Kozich, A.T., V.S. Gagnon, G. Mensch, S. Michels, and N. Gehring, 2020: Walleye Ogaawag Spearing in the Portage waterway, Michigan: Integrating mixed methodology for insight on an important tribal fishery. *Journal of Contemporary Water Research & Education*, **169** (1), 101–116. <https://doi.org/10.1111/j.1936-704x.2020.03335.x>
59. McMillen, H., T. Ticktin, and H.K. Springer, 2017: The future is behind us: Traditional ecological knowledge and resilience over time on Hawai'i Island. *Regional Environmental Change*, **17** (2), 579–592. <https://doi.org/10.1007/s10113-016-1032-1>
60. Allard, M.D. and V. Brundage Jr., 2019: American Indians and Alaska Natives in the U.S. Labor Force. U.S. Department of Labor, U.S. Bureau of Labor Statistics. <https://www.bls.gov/opub/mlr/2019/article/american-indians-and-alaska-natives-in-the-u-s-labor-force.htm>
61. Garriga-López, A.M., 2020: Debt, crisis, and resurgence in Puerto Rico. *Small Axe: A Caribbean Journal of Criticism*, **24** (2), 122–132. <https://doi.org/10.1215/07990537-8604538>
62. Long, J.W. and F.K. Lake, 2018: Escaping social-ecological traps through tribal stewardship on national forest lands in the Pacific Northwest, United States of America. *Ecology and Society*, **23** (2). <https://doi.org/10.5751/es-10041-230210>
63. Rodríguez-Díaz, C.E., 2018: Maria in Puerto Rico: Natural disaster in a colonial archipelago. *American Journal of Public Health*, **108** (1), 30–32. <https://doi.org/10.2105/ajph.2017.304198>
64. Kurashima, N., L. Fortini, and T. Ticktin, 2019: The potential of Indigenous agricultural food production under climate change in Hawai'i. *Nature Sustainability*, **2** (3), 191–199. <https://doi.org/10.1038/s41893-019-0226-1>

65. Cha, J.M., 2020: Ch. 4. Just transition: Tools for protecting workers and their communities at risk of displacement due to climate policy. In: *Putting California on the High Road: A Jobs and Climate Action Plan for 2030*. University of California, Berkeley, 147–175. <https://laborcenter.berkeley.edu/wp-content/uploads/2020/08/Chapter-4-Just-Transition-Putting-California-on-the-High-Road.pdf>
66. Wright, A., 2021: Building Stronger Tribal Economies: A Four-Part Series. Blue Stone Insights. <https://bluestonestrategy.com/building-stronger-tribal-economies-a-four-part-series/>
67. Begay, S.K., 2018: How Citizen Potawatomi Nation utilizes energy efficiency and renewable energy to address its high energy burden. *The Electricity Journal*, **31** (6), 16–22. <https://doi.org/10.1016/j.tej.2018.07.005>
68. Cambou, D. and G. Poelzer, 2021: Ch. 10. Enhancing energy justice in the Arctic: An appraisal of the participation of Arctic indigenous peoples in the transition to renewable energy. In: *Renewable Economies in the Arctic*. Natcher, D.C. and T. Koivurova, Eds. Routledge, London, UK, 19. <https://doi.org/10.4324/9781003172406>
69. Necefer, L., G. Wong-Parodi, and M.J. Small, 2020: Governing energy in conflicted resource contexts: Culture, cost, and carbon in the decision-making criteria of the Navajo Nation. *Energy Research & Social Science*, **70**, 101714. <https://doi.org/10.1016/j.erss.2020.101714>
70. Sandoval, C.J.K., 2018: Energy access is energy justice: The Yurok Tribe’s trailblazing work to close the Native American reservation electricity gap. In: *Energy Justice*. Salter, R., C.G. Gonzalez, M.H. Dworkin, R.A. Mastor, and E.K. Warner, Eds. Edward Elgar Publishing, 166–207. <https://ssrn.com/abstract=3557121>
71. Sandoval, C.J.K., 2020: Principles to Advance Energy Justice for Native Americans. EBA Brief. Energy Bar Association, 21 pp. <https://doi.org/10.2139/ssrn.3770406>
72. Strand, H., 2018: Breaking barriers to renewable energy production in the North American Arctic. *Alaska Law Review*, **35**, 67–115. <https://scholarship.law.duke.edu/alr/vol35/iss1/4>
73. Whitney, Z., 2020: Supporting Wind Development on Native American Tribal Lands. University of Hawai’i at Hilo, 149–153 pp. <https://hilo.hawaii.edu/campuscenter/hohonu/volumes/documents/SupportingWindDevelopmentonNativeAmericanTribalLands.pdf>
74. Wildcat, D., R. Blake, J.C. Collard, Lomayestewa, D. Marks-Marino, K. Morales, H. Mullen, A. Samoy, A. Walker, F. Wilkinson, and K. Whyte, 2021: Ch. 7. Energy & a just transition. In: *Status of Tribes and Climate Change Report*. Marks-Marino, D., Ed. Institute for Tribal Environmental Professionals, 190–209. <http://nau.edu/stacc2021>
75. Brewer II, J.P., S. Vandever, and J.T. Johnson, 2018: Towards energy sovereignty: Biomass as sustainability in interior Alaska. *Sustainability Science*, **13** (2), 417–429. <https://doi.org/10.1007/s11625-017-0441-5>
76. O’Rourke, E. and J. Zoellick, 2020: Energy Paths for the Yurok People. DOE-YUROK-000008. U.S. Department of Energy, Office of Indian Energy Policy and Programs. <https://doi.org/10.2172/1599208>
77. Schelly, C., D. Bessette, K. Brosemer, V. Gagnon, K.L. Arola, A. Fiss, J.M. Pearce, and K.E. Halvorsen, 2020: Energy policy for energy sovereignty: Can policy tools enhance energy sovereignty? *Solar Energy*, **205**, 109–112. <https://doi.org/10.1016/j.solener.2020.05.056>
78. Souba, F. and P.B. Mendelson, 2018: Chaninik Wind Group: Lessons learned beyond wind integration for remote Alaska. *The Electricity Journal*, **31** (6), 40–47. <https://doi.org/10.1016/j.tej.2018.06.008>
79. Donatuto, J., L. Campbell, and W. Trousdale, 2020: The “value” of values-driven data in identifying Indigenous health and climate change priorities. *Climatic Change*, **158** (2), 161–180. <https://doi.org/10.1007/s10584-019-02596-2>
80. Tribal Adaptation Menu Team, 2019: Dibaginjigaadeg Anishinaabe Ezhitwaad: A Tribal Climate Adaptation Menu. Great Lakes Indian Fish and Wildlife Commission, Odanah, WI, 54 pp. <https://forestadaptation.org/tribal-climate-adaptation-menu>
81. Hasbrouck, T.R., T.J. Brinkman, G. Stout, E. Trochim, and K. Kielland, 2020: Quantifying effects of environmental factors on moose harvest in Interior Alaska. *Wildlife Biology*, **2020** (2). <https://doi.org/10.2981/wlb.00631>
82. VanWinkle, T.N. and J. Friedman, 2019: Between drought and disparity: American Indian farmers, resource bureaucracy, and climate vulnerability in the Southern Plains. *Journal of Agriculture, Food Systems, and Community Development*, **9** (B), 53–68. <https://doi.org/10.5304/jafscd.2019.09b.022>

83. Zentner, E., M. Kecinski, A. Letourneau, and D. Davidson, 2019: Ignoring Indigenous peoples—Climate change, oil development, and Indigenous rights clash in the Arctic National Wildlife Refuge. *Climatic Change*, **155** (4), 533–544. <https://doi.org/10.1007/s10584-019-02489-4>
84. Martin, C., J. Doyle, J. LaFrance, M.J. Lefthand, S.L. Young, E. Three Irons, and M.J. Eggers, 2020: Change rippling through our waters and culture. *Journal of Contemporary Water Research & Education*, **169** (1), 61–78. <https://doi.org/10.1111/j.1936-704x.2020.03332.x>
85. Donatuto, J., L. Campbell, C. Cooley, M. Cruz, J. Doyle, M. Eggers, T. Farrow Ferman, S. Gaughen, P. Hardison, C. Jones, D. Marks-Marino, A. Pairis, W. Red Elk, D. Sambo Dorrough, and C. Sanders, 2021: Ch. 5. Health & wellbeing. In: *Status of Tribes and Climate Change Report*. Marks-Marino, D., Ed. Institute for Tribal Environmental Professionals, 159–173. <http://nau.edu/stacc2021>
86. Adams, A., R. Byron, B. Maxwell, S. Higgins, M. Eggers, L. Byron, and C. Whitlock, 2021: Climate Change and Human Health in Montana: A Special Report of the Montana Climate Assessment. Montana State University, Institute on Ecosystems, Center for American Indian and Rural Health Equity, Bozeman, MT, 216 pp. <https://doi.org/10.15788/c2h22021>
87. Karuk Tribe, 2019: Karuk Climate Adaptation Plan. Karuk Tribe Department of Natural Resources. [https://karuktribeclimatechangeprojects.files.wordpress.com/2019/08/final-karuk-climate-adaptation-plan\\_july2019.pdf](https://karuktribeclimatechangeprojects.files.wordpress.com/2019/08/final-karuk-climate-adaptation-plan_july2019.pdf)
88. McKinley, C.E., J.M. Scarnato, J. Liddell, H. Knipp, and S. Billiot, 2019: Hurricanes and indigenous families: Understanding connections with discrimination, social support, and violence on PTSD. *Journal of Family Strengths*, **19** (1). <https://digitalcommons.library.tmc.edu/jfs/vol19/iss1/10/>
89. Middleton, J., A. Cunsolo, A. Jones-Bitton, C.J. Wright, and S.L. Harper, 2020: Indigenous mental health in a changing climate: A systematic scoping review of the global literature. *Environmental Research Letters*, **15** (5), 053001. <https://doi.org/10.1088/1748-9326/ab68a9>
90. Vecchio, E.A., M. Dickson, and Y. Zhang, 2022: Indigenous mental health and climate change: A systematic literature review. *The Journal of Climate Change and Health*, **6**, 100121. <https://doi.org/10.1016/j.joclim.2022.100121>
91. Csevár, S., 2021: Voices in the background: Environmental degradation and climate change as driving forces of violence against Indigenous women. *Global Studies Quarterly*, **1** (3), ksab018. <https://doi.org/10.1093/isagsq/ksab018>
92. Scheidel, A., D. Del Bene, J. Liu, G. Navas, S. Mingorría, F. Demaria, S. Avila, B. Roy, I. Ertör, L. Temper, and J. Martínez-Alier, 2020: Environmental conflicts and defenders: A global overview. *Global Environmental Change*, **63**, 102104. <https://doi.org/10.1016/j.gloenvcha.2020.102104>
93. Scheidel, A., Á. Fernández-Llamazares, A.H. Bara, D. Del Bene, D.M. David-Chavez, E. Fanari, I. Garba, K. Hanaček, J. Liu, J. Martínez-Alier, G. Navas, V. Reyes-García, B. Roy, L. Temper, M.A. Thiri, D. Tran, M. Walter, and K.P. Whyte, 2023: Global impacts of extractive and industrial development projects on Indigenous Peoples' lifeways, lands, and rights. *Science Advances*, **9** (23), 9557. <https://doi.org/10.1126/sciadv.ade9557>
94. Wiecks, J., C. Avery, A. Boetcher, C. Cooley, M. Cruz, P. Hardison, C. Jones, C. Kriebs, and D. Marks-Marino, 2021: Ch. 4.1. Air. In: *Status of Tribes and Climate Change Report*. Marks-Marino, D., Ed. Institute for Tribal Environmental Professionals, 81–97. <http://nau.edu/stacc2021>
95. Johnson, M.P., 2021: 'Thirsty sugar lands': Environmental impacts of dams and Empire in Puerto Rico since 1898. *Environment and History*, **27** (3), 337–365. <https://doi.org/10.3197/096734019x15631846928701>
96. Zavaleta-Cortijo, C., J.D. Ford, I. Arotoma-Rojas, S. Lwasa, G. Lancha-Rucoba, P.J. García, J.J. Miranda, D.B. Namanya, M. New, C.J. Wright, L. Berrang-Ford, C. Carcamo, V. Edge, and S.L. Harper, 2020: Climate change and COVID-19: Reinforcing Indigenous food systems. *The Lancet Planetary Health*, **4** (9), e381–e382. [https://doi.org/10.1016/s2542-5196\(20\)30173-x](https://doi.org/10.1016/s2542-5196(20)30173-x)
97. Leonard, K., 2021: Sustaining Tribal fisheries: U.S. economic relief policies during COVID-19. *Sustainability*, **13** (22), 12366. <https://doi.org/10.3390/su132212366>
98. John-Henderson, N.A., B.J. Oosterhoff, L.R. Johnson, M. Ellen Lafromboise, M. Malatare, and E. Salois, 2022: COVID-19 and food insecurity in the Blackfeet Tribal Community. *Food Security*, **14** (5), 1337–1346. <https://doi.org/10.1007/s12571-022-01292-x>
99. Leonard, K., 2020: Medicine lines and COVID-19: Indigenous geographies of imagined bordering. *Dialogues in Human Geography*, **10** (2), 164–168. <https://doi.org/10.1177/2043820620934941>



100. Lunsford, L., M. Arthur, and C. Porter, 2021: African and Native American foodways and resilience: From 1619 to COVID-19. *Journal of Agriculture, Food Systems, and Community Development*, **10** (4), 241–265. <https://doi.org/10.5304/jafscd.2021.104.008>
101. Larson, R., 2020: Water law and the response to COVID-19. *Water International*, **45** (7–8), 716–721. <https://doi.org/10.1080/02508060.2020.1835422>
102. ANTHC, 2019: Portable Alternative Sanitation System Connects In-Home Sanitation Systems Where It Was Impossible Before. Alaska Native Tribal Health Consortium. <https://www.anthc.org/news/portable-alternative-sanitation-system-connects-in-home-sanitation-systems-where-it-was-impossible-before/>
103. Mitchell, F.M., 2020: American Indian water insecurity in the era of COVID-19. *Journal of Indigenous Social Development*, **9** (3), 67–75. <https://journalhosting.ucalgary.ca/index.php/jisd/article/view/71067/5441>
104. OCCHE, 2022: Climate Change and Health Equity. U.S. Department of Health and Human Services, Office of Climate Change and Health Equity. <https://www.hhs.gov/climate-change-health-equity-environmental-justice/climate-change-health-equity/index.html>
105. Stoler, J., W.E. Jepson, and A. Wutich, 2020: Beyond handwashing: Water insecurity undermines COVID-19 response in developing areas. *Journal of Global Health*, **10** (1), 010355. <https://doi.org/10.7189/jogh.10.010355>
106. Tanana, H., J. Combs, and A. Hoss, 2021: Water is life: Law, systemic racism, and water security in Indian Country. *Health Security*, **19** (1), 78–82. <https://doi.org/10.1089/hs.2021.0034>
107. Leonard, K., N. Welch, and A.A. Joseph, 2020: COVID-19 in Indigenous communities: Five protective factors of “exercising” sovereignty. In: *Sport and the Pandemic: Perspectives on COVID-19’s Impact on the Sport Industry*. Pedersen, P.M., B.J. Ruihley, and B. Li, Eds. Routledge, New York, 236–246. [https://digitalcommons.linfield.edu/busnfac\\_pubs/4/](https://digitalcommons.linfield.edu/busnfac_pubs/4/)
108. Pember, M.A., 2020: Ojibwe people carry on wild rice tradition amid COVID-19. *Indian Country Today*, September 30, 2020. <https://www.indianz.com/news/2020/09/30/indian-country-today-ojibwe-people-carry-on-wild-rice-tradition-amid-covid-19/>
109. Wheat, S., S. Gaughen, J. Skeet, L. Campbell, J. Donatuto, J. Schaeffer, and C. Sorensen, 2022: Climate change and COVID-19: Assessing the vulnerability and resilience of U.S. Indigenous communities to syndemic crises. *The Journal of Climate Change and Health*, **8**, 100148. <https://doi.org/10.1016/j.joclim.2022.100148>
110. Emerson, M.A. and T. Montoya, 2021: Confronting legacies of structural racism and settler colonialism to understand COVID-19 impacts on the Navajo Nation. *American Journal of Public Health*, **111** (8), 1465–1469. <https://doi.org/10.2105/ajph.2021.306398>
111. Bowling, T., 2020: Burial at sea: Maryland’s historic cemeteries at risk. *Natural Resources & Environment*, **34** (3), 39–43. [https://www.americanbar.org/groups/environment\\_energy\\_resources/publications/natural\\_resources\\_environment/2019-20/winter/burial-sea-marylands-historic-cemeteries-risk/](https://www.americanbar.org/groups/environment_energy_resources/publications/natural_resources_environment/2019-20/winter/burial-sea-marylands-historic-cemeteries-risk/)
112. Ezcurra, P. and I.C. Rivera-Collazo, 2018: An assessment of the impacts of climate change on Puerto Rico’s Cultural Heritage with a case study on sea-level rise. *Journal of Cultural Heritage*, **32**, 198–209. <https://doi.org/10.1016/j.culher.2018.01.016>
113. Hutton, N.S. and T.R. Allen, 2020: The role of traditional knowledge in coastal adaptation priorities: The Pamunkey Indian Reservation. *Water*, **12** (12), 3548. <https://doi.org/10.3390/w12123548>
114. Leonard, K., 2021: WAMPUM adaptation framework: Eastern coastal Tribal Nations and sea level rise impacts on water security. *Climate and Development*, **13** (9), 842–851. <https://doi.org/10.1080/17565529.2020.1862739>
115. Mockta, T.K., P.Z. Fulé, A. Sánchez Meador, T. Padilla, and Y.-S. Kim, 2018: Sustainability of culturally important teepee poles on Mescalero Apache Tribal Lands: Characteristics and climate change effects. *Forest Ecology and Management*, **430**, 250–258. <https://doi.org/10.1016/j.foreco.2018.08.017>
116. Benner, J., J. Nielsen, and K. Lertzman, 2021: Using traditional ecological knowledge to understand the diversity and abundance of culturally important trees. *Journal of Ethnobiology*, **41** (2), 209–228. <https://doi.org/10.2993/0278-0771-41.2.209>
117. Marks-Block, T., F.K. Lake, and L.M. Curran, 2019: Effects of understory fire management treatments on California hazelnut, an ecocultural resource of the Karuk and Yurok Indians in the Pacific Northwest. *Forest Ecology and Management*, **450**, 117517. <https://doi.org/10.1016/j.foreco.2019.117517>

118. Emery, M.R., 2019: Voices from Maple Nation: Indigenous women’s climate summit. *New England Society of American Foresters News Quarterly*, **80** (4), 8–10. <https://www.fs.usda.gov/research/treearch/59171>
119. Langston, N., 2021: *Climate Ghosts: Migratory Species in the Anthropocene*. Brandeis University Press, 201 pp. <https://doi.org/10.2307/j.ctv2n7j1hf>
120. Dorais, L.-J., 2020: *Words of the Inuit: A Semantic Stroll Through a Northern Culture*. University of Manitoba Press, 344 pp. <https://uofmpress.ca/books/detail/words-of-the-inuit>
121. Weyapuk, W. and I. Krupnik, 2012: Kinikmi Sigum Qanuq Ilitaavut, Wales Inupiaq Sea Ice Dictionary. Arctic Studies Center, Washington, DC. <https://repository.si.edu/handle/10088/94115>
122. Wilson, K.J., A. Arreak, J. Itulu, Sikumiut Community Management Committee, G.J. Ljubicic, and T. Bell, 2021: “When we’re on the ice, all we have is our Inuit Qaujimajatuqangit”: Mobilizing Inuit knowledge as a sea ice safety adaptation strategy in Mittimatalik, Nunavut. *Arctic*, **74** (4), 418–583. <https://doi.org/10.14430/arctic74212>
123. IPN, n.d.: Indigenous Phenology Network [Website], accessed May 25, 2023. <https://www.usanpn.org/nn/indigenous-phenology-network>
124. AIJ, 2020: Rights of Indigenous People in Addressing Climate-Forced Displacement: Complaint Submitted to the United Nations’ Special Rapporteurs. Alaska Institute for Justice. <https://climatecasechart.com/non-us-case/rights-of-indigenous-people-in-addressing-climate-forced-displacement/>
125. Tanana, H., 2022: Protecting Tribal Public Health from Climate Change Impacts. University of Utah College of Law Research Paper No. 511. *Northeastern Law Review*, 43 pp. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4212778](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4212778)
126. GAO, 2022: Alaska Native Issues: Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats. GAO-22-104241. U.S. Government Accountability Office. <https://www.gao.gov/assets/gao-22-104241.pdf>
127. Schwebel, M.B., 2018: Climate change perceptions and preparation in the United States territories in the Pacific: American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. *Island Studies Journal*, **13** (1), 135–148. <https://doi.org/10.24043/isj.57>
128. Serrano, S.K. and I.F. Tapu, 2022: Reparative justice in the U.S. territories: Reckoning with America’s colonial climate crisis. *California Law Review*, **110**. <https://californialawreview.org/print/reparative-justice-in-the-u-s-territories-reckoning-with-americas-colonial-climate-crisis/>
129. Indianz.com, 2021: H.R.4352 – Legislative fix to U.S. Supreme Court decision in *Carcieri v. Salazar*. *Native American News*. Indianz.com. <https://www.indianz.com/news/2021/12/01/h-r-4352-legislative-fix-to-u-s-supreme-court-decision-in-carcieri-v-salazar/>
130. Keene, E., 2017: Lessons from relocations past: Climate change, tribes, and the need for pragmatism in community relocation planning. *American Indian Law Review*, **42** (1), 259–289. <https://www.jstor.org/stable/26492279>
131. NCAI, 2020: Protecting Tribal Lands and Environment and Addressing Climate Change. National Congress of American Indians. [https://www.ncai.org/conferences-events/ncai-events/2020\\_tuid\\_homelands\\_and\\_climate\\_-\\_final.pdf](https://www.ncai.org/conferences-events/ncai-events/2020_tuid_homelands_and_climate_-_final.pdf)
132. USET, 2019: Testimony of United South and Eastern Tribes Sovereignty Protection Fund Submitted to the House Natural Resources Subcommittee for Indigenous People of the United States for the Record of the February 12, 2019 Hearing, “The Impacts of Climate Change on Tribal Communities”. United South and Eastern Tribes, 4 pp. [https://www.usetinc.org/wp-content/uploads/2019/02/USET-SPF-Testimony-to-HNR\\_Climate-Change-Tribal-Nations-FINAL-022619.pdf](https://www.usetinc.org/wp-content/uploads/2019/02/USET-SPF-Testimony-to-HNR_Climate-Change-Tribal-Nations-FINAL-022619.pdf)
133. NAIHC, 2017: Flood Mapping on Native American Reservations. National American Indian Housing Council, 2 pp. <https://naihc.net/wp-content/uploads/2018/03/Flood-Mappin-White-Paper-FINAL.pdf>
134. Fayazi, M., I.-A. Bisson, and E. Nicholas, 2020: Barriers to climate change adaptation in indigenous communities: A case study on the mohawk community of Kanesatake, Canada. *International Journal of Disaster Risk Reduction*, **49**, 101750. <https://doi.org/10.1016/j.ijdrr.2020.101750>
135. Tanana, H.J. and J.C. Ruple, 2021: Synching Science and Policy to Address Climate Change in Tribal Communities. Research Paper No. 467. University of Utah, SJ Quinney College of Law. <https://doi.org/10.2139/ssrn.3919210>

136. Trahant, M., 2018: Tribal people face disproportionate impact from climate change. *Indian Country Today*, November 27, 2018. <https://www.indianz.com/news/2018/11/27/mark-trahant-climate-change-threatens-na.asp>
137. National Drought Mitigation Center, 2023: U.S. Drought Monitor. University of Nebraska-Lincoln, National Drought Mitigation Center, accessed August 16, 2023. <https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>
138. Cozzetto, K., D. Marks-Marino, and STACCWG, 2021: Executive summary. In: *Status of Tribes and Climate Change Report*. Marks-Marino, D., Ed. Institute for Tribal Environmental Professionals, 6–14. <http://nau.edu/stacc2021>
139. Domestic Policy Council, 2021: The White House Tribal Nations Summit Progress Report. The White House, Washington, DC, 38 pp. <https://www.whitehouse.gov/wp-content/uploads/2021/11/wh-tribal-nations-summit-progress-report.pdf>
140. GAO, 2022: Tribal and Native American Issues. U.S. Government Accountability Office. <https://www.gao.gov/tribal-and-native-american-issues>
141. U.S. Commission on Civil Rights, 2018: Broken Promises: Continuing Federal Funding Shortfall for Native Americans. Briefing Report. U.S. Commission on Civil Rights, Washington, DC. <https://www.usccr.gov/files/pubs/2018/12-20-broken-promises.pdf>
142. Whyte, K., J. Maldonado, S. McNeeley, H. Mullen, and R. Novak, 2021: Ch. 1. History of Indigenous peoples in national climate assessments. In: *Status of Tribes and Climate Change Report*. Marks-Marino, D., Ed. Institute for Tribal Environmental Professionals, 27–33. <http://nau.edu/stacc2021>
143. Treaty Indian Tribes in Western Washington, 2011: Treaty Rights At Risk: Ongoing Habitat Loss, the Decline of the Salmon Resource, and Recommendations for Change. Northwest Indian Fisheries Commission, Olympia, WA, 35 pp. [https://salishseare Restoration.org/wiki/File:NWIFC\\_2011\\_treaty\\_rights\\_at\\_risk.pdf](https://salishseare Restoration.org/wiki/File:NWIFC_2011_treaty_rights_at_risk.pdf)
144. Whyte, K.P., 2013: Justice forward: Tribes, climate adaptation and responsibility. *Climatic Change*, **120** (3), 517–530. <https://doi.org/10.1007/s10584-013-0743-2>
145. CEQ, 2022: CEQ Summary of Tribal Consultations on America the Beautiful. White House Council on Environmental Quality, Washington, DC. <https://www.whitehouse.gov/ceq/news-updates/2022/03/21/ceq-summary-of-tribal-consultations-on-america-the-beautiful/>
146. Kennedy, S., 2022: This land is not our land, this land is their land: Returning national park lands to their rightful protectors. *American Indian Law Journal*, **10** (1), 3. <https://digitalcommons.law.seattleu.edu/ailj/vol10/iss1/3/>
147. Washburn, K.K., 2021: Facilitating Tribal Co-Management of Federal Public Lands. *Wis. L. Rev.* 263; Iowa Legal Studies Research Paper No. 2021-45. University of Iowa, College of Law. <https://doi.org/10.2139/ssrn.3951290>
148. Mills, M. and M. Nie, 2021: Bridges to a new era: A report on the past, present, and potential future of tribal co-management on federal public lands. *Public Land & Resources Law Review*, **44**, 2. <https://scholarworks.umt.edu/plrlr/vol44/iss1/2>
149. Executive Office of the President, 2000: Executive Order 13175: Consultation and coordination with Indian tribal governments. *Federal Register*, **65** (218), 67249–67252. <https://www.federalregister.gov/documents/2000/11/09/00-29003/consultation-and-coordination-with-indian-tribal-governments>
150. Dockry, M.J., S.A. Gutterman, and M.A. Davenport, 2018: Building bridges: Perspectives on partnership and collaboration from the US Forest Service tribal relations program. *Journal of Forestry*, **116** (2), 123–132. <https://doi.org/10.5849/jof-2016-106>
151. David-Chavez, D.M., S. Valdez, J.B. Estevez, C. Meléndez Martínez, A.A. Garcia, K. Josephs, and A. Troncoso, 2020: Community-based (rooted) research for regeneration: Understanding benefits, barriers, and resources for Indigenous education and research. *AlterNative: An International Journal of Indigenous Peoples*, **16** (3), 220–232. <https://doi.org/10.1177/1177180120952896>
152. Emanuel, R.E. and D.E. Wilkins, 2020: Breaching barriers: The fight for Indigenous participation in water governance. *Water*, **12** (8). <https://doi.org/10.3390/w12082113>
153. Jacobson, M.A., R. Hajjar, E.J. Davis, and S. Hoagland, 2021: Learning from tribal leadership and the anchor forest concept for implementing cross-boundary forest management. *Journal of Forestry*, **119** (6), 605–617. <https://doi.org/10.1093/jofore/fvab031>

154. Sessions, J., J. Gordon, P. Rigdon, D. Motanic, and V. Corrao, 2017: Indian forests and forestry: Can they play a larger role in sustainable forest management? *Journal of Forestry*, **115** (5), 364–365. <https://doi.org/10.5849/jof.2016-083r1>
155. Braithwaite, J., 2022: This is no longer a Bristol Bay Fishery”: Fisheries dispossession and colonial violence in Bristol Bay, Alaska. *Marine Policy*, **143**, 105172. <https://doi.org/10.1016/j.marpol.2022.105172>
156. Leonard, K., 2021: Turtle Island (North America) Indigenous higher education institutions and environmental sustainability education. *Journal of Comparative & International Higher Education*, **13**, 90–133. <https://doi.org/10.32674/jcihe.v13isummer.3279>
157. Blackwater, D., 2020: Broadband internet access: A solution to tribal economic development challenges. *The Indigenous Peoples' Journal of Law, Culture, & Resistance*, **6**, 93–116. <https://www.jstor.org/stable/48671871>
158. FCC Native Nations Communications Task Force, 2019: Improving and Increasing Broadband Deployment on Tribal Lands. Report to the Federal Communications Commission from the Tribal Members of the Task Force. Federal Communications Commission, 39 pp. [https://www.fcc.gov/sites/default/files/nnctf\\_tribal\\_broadband\\_report.pdf](https://www.fcc.gov/sites/default/files/nnctf_tribal_broadband_report.pdf)
159. FEMA, 2019: Tribal Mitigation Planning Handbook. U.S. Department of Homeland Security, Federal Emergency Management Agency. [https://www.fema.gov/sites/default/files/2020-06/fema-tribal-planning-handbook\\_05-2019.pdf](https://www.fema.gov/sites/default/files/2020-06/fema-tribal-planning-handbook_05-2019.pdf)
160. Rivera-Collazo, I.C., 2021: Climate change and archaeological sites: A case study for partnering cultural heritage and climate action. In: *Stemming the Tide: Global Strategies for Sustaining Cultural Heritage through Climate Change*. Rushfield, R., Ed. Smithsonian Institution Scholarly Press, Washington, DC, 25–38. <https://doi.org/10.5479/si.14750727>
161. David-Chavez, D., D.B. Ferguson, A. Curley, T. Lane, S. Yazzie, S. Leroy, and S. Russo Carroll, 2019: Policy Brief: Supporting Tribal Data Governance for Indigenous Community Climate Resilience. University of Arizona, Native Nations Institute and the Climate Assessment for the Southwest, Tucson, AZ. <https://nni.arizona.edu/publications/policy-brief-supporting-tribal-data-governance-indigenous-community-climate-resilience>
162. Walter, M., T. Kukutai, S.R. Carroll, and D. Rodriguez-Lonebear, Eds., 2020: *Indigenous Data Sovereignty and Policy*. 1st ed., Taylor & Francis, London, UK. <https://doi.org/10.4324/9780429273957>
163. Walter, M. and M. Suina, 2019: Indigenous data, Indigenous methodologies and Indigenous Data Sovereignty. *International Journal of Social Research Methodology*, **22** (3), 233–243. <https://doi.org/10.1080/13645579.2018.1531228>
164. Wheeler, H.C., F. Danielsen, M. Fidel, V. Hausner, T. Horstkotte, N. Johnson, O. Lee, N. Mukherjee, A. Amos, H. Ashthorn, Ø. Ballari, C. Behe, K. Breton-Honeyman, G.-B. Retter, V. Buschman, P. Jakobsen, F. Johnson, B. Lyberth, J.A. Parrott, M. Pogodaev, R. Sulyandziga, and N. Vronski, 2020: The need for transformative changes in the use of Indigenous Knowledge along with science for environmental decision-making in the Arctic. *People and Nature*, **2** (3), 544–556. <https://doi.org/10.1002/pan3.10131>
165. Carroll, S.R., I. Garba, O.L. Figueroa-Rodríguez, J. Holbrook, R. Lovett, S. Materechera, M. Parsons, K. Raseroka, D. Rodriguez-Lonebear, R. Rowe, R. Sara, J.D. Walker, J. Anderson, and M. Hudson, 2020: The CARE Principles for Indigenous Data Governance. *Data Science Journal*, **19** (1), 43. <https://doi.org/10.5334/dsj-2020-043>
166. Carroll, S.R., E. Herczog, M. Hudson, K. Russell, and S. Stall, 2021: Operationalizing the CARE and FAIR Principles for Indigenous Data Futures. *Scientific Data*, **8** (1), 108. <https://doi.org/10.1038/s41597-021-00892-0>
167. Galappaththi, E., 2022: Indigenous data sovereignty: Insights from climate change adaptation research. In: *American Fisheries Society Annual Meeting*. Spokane, WA, 21–25 August 2022. Presentation at the American Fisheries Society Annual Meeting.
168. Matson, L., G.H.C. Ng, M. Dockry, M. Nyblade, H.J. King, M. Bellcourt, J. Bloomquist, P. Bunting, E. Chapman, D. Dalbotten, M.A. Davenport, K. Diver, M. Duquain, W. Graveen, K. Hagsten, K. Hedin, S. Howard, T. Howes, J. Johnson, S. Kesner, E. Kojola, R. LaBine, D.J. Larkin, M. Montano, S. Moore, A. Myrbo, M. Northbird, M. Porter, R. Robinson, C.M. Santelli, R. Schmitter, R. Shimek, N. Schuldt, A. Smart, D. Strong, J. Torgeson, D. Vogt, and A. Waheed, 2021: Transforming research and relationships through collaborative tribal-university partnerships on manoomin (wild rice). *Environmental Science & Policy*, **115**, 108–115. <https://doi.org/10.1016/j.envsci.2020.10.010>
169. Carroll, S.R., Rodriguez-Lonebear, D., Martinez, A., 2019: Indigenous data governance: Strategies from United States Native nations. *Data Science Journal*, **18** (1), 31. <https://doi.org/10.5334/dsj-2019-031>

170. O'Brien, M., 2021: CARE principles for ESIP data repositories. In: *Earth Science Information Partners (ESIP)*. Edinburgh, UK, 22 April 2021. <https://doi.org/10.5281/zenodo.5644249>
171. Nursey-Bray, M., M. Parsons, and A. Gienger, 2022: *Urban nullius?* Urban Indigenous people and climate change. *Sustainability*, **14** (17). <https://doi.org/10.3390/su141710830>
172. Dent, L.A., J. Donatuto, L. Campbell, M. Boardman, J.J. Hess, and N.A. Errett, 2023: Incorporating Indigenous voices in regional climate change adaptation: Opportunities and challenges in the U.S. Pacific Northwest. *Climatic Change*, **176** (3), 27. <https://doi.org/10.1007/s10584-023-03499-z>
173. Evans, L.E., N. Dolšak, M.T. Plog, and A. Prakash, 2020: Native American tribal governments, cross-sectoral climate policy, and the role of intertribal networks. *Climatic Change*, **160** (1), 35–43. <https://doi.org/10.1007/s10584-019-02641-0>
174. Dittmer, K., 2013: Changing streamflow on Columbia basin tribal lands—Climate change and salmon. *Climatic Change*, **120** (3), 627–641. <https://doi.org/10.1007/s10584-013-0745-0>
175. Dockry, M.J., S.J. Hoagland, A.D. Leighton, J.R. Durglo, and A. Pradhananga, 2023: An assessment of American Indian forestry research, information needs, and priorities. *Journal of Forestry*, **121** (1), 49–63. <https://doi.org/10.1093/jofore/fvac030>
176. Gephart, L., 2009: Tribal salmon restoration and climate change in the Pacific Northwest. *Ecological Restoration*, **27** (3), 263. <https://doi.org/10.3368/er.27.3.263>
177. Singel, W., 2018: Indigenous responses to climate change and water quality concerns in the Great Lakes. *Sea Grant Law & Policy Journal*, **9**, 62. <https://doi.org/10.17613/z4yr-yz15>
178. Krosby, M., G. Bridge, E.T. Asinas, and S. Hall, 2023: Moving transboundary conservation from Indigenous engagement to Indigenous leadership: Working across borders for a resilient Cascadia. *Parks Stewardship Forum*, **39** (1). <https://doi.org/10.5070/p539159903>
179. Nursey-Bray, M., R. Palmer, A.M. Chischilly, P. Rist, and L. Yin, 2022: Ch. 4. Tribal capacity building and adaptation planning: The United States. In: *Old Ways for New Days: Indigenous Survival and Agency in Climate Changed Times*. Nursey-Bray, M., R. Palmer, A.M. Chischilly, P. Rist, and L. Yin, Eds. Springer, Cham, Switzerland, 57–76. [https://doi.org/10.1007/978-3-030-97826-6\\_4](https://doi.org/10.1007/978-3-030-97826-6_4)
180. NDN Collective Climate Justice Team, 2021: Memo: How ‘The Build Back Better Act’ Can Meaningfully Mobilize Investment to Indigenous Communities & Uphold Free Prior and Informed Consent in the Process. NDN Collective, Rapid City, SD. <https://ndncollective.org/memo-how-the-build-back-better-act-can-meaningfully-mobilize-investment-to-indigenous-communities-uphold-free-prior-and-informed-consent-in-the-process/>
181. *Hearing: A Call to Action: Native Communities’ Priorities in Focus for the 117th Congress, United States Senate, Committee on Indian Affairs*, 2021: United States Congress, One Hundred Seventeenth, First Session. <https://www.govinfo.gov/content/pkg/CHRG-117shrg44248/html/CHRG-117shrg44248.htm>
182. BIA, 2021: National Climate Assessment: Indigenous Peoples Resilience Actions. U.S. Bureau of Indian Affairs, Tribal Climate Resilience Program. <https://biamaps.doi.gov/portal/apps/webappviewer/index.html?id=53794ae1ce054029bd5b55bcf269434c>
183. Dockry, M.J., 2020: Indigenous rights and empowerment in natural resource management and decision making as a driver of change in U.S. forestry. In: *Drivers of Change in U.S. Forests and Forestry Over the Next 20 Years*. Dockry, M.J., D.N. Bengston, and L.M. Westphal, Eds. U.S. Department of Agriculture, Forest Service, Northern Research Station, Madison, WI, 76–83. <https://doi.org/10.2737/nrs-gtr-p-197-paper8>
184. Grossman, Z., 2008: Indigenous nations’ responses to climate change. *American Indian Culture and Research Journal*, **32**, 5–27. <https://doi.org/10.17953/aicr.32.3.n561082k204ul53g>
185. Gwich'in Steering Committee, 2020: Arctic Indigenous Climate Change Summit Report. Gwich'in Nation. <https://ourarcticrefuge.org/wp-content/uploads/2022/09/aics2019-report-final.pdf>
186. ITEP, 2022: Tribal Profiles. Northern Arizona University, Institute for Tribal Environmental Professionals, Flagstaff, AZ. <https://www7.nau.edu/itep/main/tcc/tribes/>
187. Lubchenco, J., K. Leonard, R. Hilborn, and K. Kryw, 2017: Full Committee Hearing: Ocean Climate Action: Solutions to the Climate Crisis. U.S. Natural Resources Committee. <https://www.congress.gov/116/meeting/house/111092/witnesses/HMTG-116-II00-Wstate-LubchencoJ-20201117.pdf>

188. Steen-Adams, M., D. Sampson, C. Jones, K. Lynn, and J. Mankowski, 2020: Tribal Review of the 2020 Congressional Action Plan on the Climate Crisis. Affiliated Tribes of Northwest Indians, Portland, OR, 80 pp. [https://atntribes.org/climatechange/wp-content/uploads/2020/11/ATNI\\_Tribal-review-of-CAP\\_11.7.20H.pdf](https://atntribes.org/climatechange/wp-content/uploads/2020/11/ATNI_Tribal-review-of-CAP_11.7.20H.pdf)
189. U.S. Federal Government, 2021: Tribal Resilience Resource Guide. U.S. Climate Resilience Toolkit. <https://toolkit.climate.gov/tool/tribal-resilience-resource-guide>
190. Latulippe, N. and N. Klenk, 2020: Making room and moving over: Knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making. *Current Opinion in Environmental Sustainability*, **42**, 7–14. <https://doi.org/10.1016/j.cosust.2019.10.010>
191. UNESCO, 2020: Mobilizing Indigenous and Local Knowledge Solutions: Addressing Climate Impacts and Vulnerabilities. A Perspective from the Caribbean Region. United Nations Educational, Scientific, and Cultural Organization, Georgetown, Guyana. [https://www4.unfccc.int/sites/submissionsstaging/documents/202009071542---unesco%20links%20sids\\_caribbean%20ilk-climate%20workshop%20report\\_\\_\\_final%20draft%5b3%5d.pdf](https://www4.unfccc.int/sites/submissionsstaging/documents/202009071542---unesco%20links%20sids_caribbean%20ilk-climate%20workshop%20report___final%20draft%5b3%5d.pdf)
192. Lac du Flambeau Tribe, 2019: Hazard Mitigation Plan. Chapman, E., B. Gauthier, S. Petersen, G. Haddow, and D. Cappola, Eds. Federal Emergency Management Agency, 104 pp. <http://www.ldftribe.com/resilience>
193. Schramm, P.J., A.L.A. Janabi, L.W. Campbell, J.L. Donatuto, and S.C. Gaughen, 2020: How Indigenous communities are adapting to climate change: Insights from the Climate-Ready Tribes Initiative. *Health Affairs*, **39** (12), 2153–2159. <https://doi.org/10.1377/hlthaff.2020.00997>
194. Morales, K., 2021: Climate Change 202: Tribal Hazard Mitigation Planning Cohort. Northern Arizona University, Institute for Tribal Environmental Professionals, Climate Change Program. [https://www7.nau.edu/itep/main/tcc/tribes/ntnl\\_thmp](https://www7.nau.edu/itep/main/tcc/tribes/ntnl_thmp)
195. BIA, 2023: Tribal Climate Resilience Annual Awards Program. U.S. Department of the Interior, Bureau of Indian Affairs, Washington, DC, accessed September 12, 2023. <https://www.bia.gov/service/tcr-annual-awards-program>
196. GLIFWC Climate Change Team, 2023: Aaji-Bimaadiziimagak O'ow Aki. Great Lakes Indian Fish and Wildlife Commission, Odanah, WI, 332 pp. <https://glifwc.org/climatechange/>
197. Brown, A., 2020: Tribes expect little help in fight to protect elders from coronavirus. *The Pew Charitable Trusts*, March 19, 2020. <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/03/19/tribes-expect-little-help-in-fight-to-protect-elders-from-coronavirus>
198. Avitt, A., 2021: Tribal and Indigenous Fire Tradition. U.S. Department of Agriculture, Forest Service, Fire and Aviation Management. <https://www.fs.usda.gov/features/tribal-and-indigenous-heritage>
199. Onondaga Nation, 2015: TSHA' THONSWATHA: The Journey to a New Firehouse. Onondaga Nation. <https://www.onondagation.org/news/2015/tsha-thonswatha-the-journey-to-a-new-firehouse/>
200. Dockry, M.J., K. Hall, W. Van Lopik, and C.M. Caldwell, 2016: Sustainable development education, practice, and research: An indigenous model of sustainable development at the College of Menominee Nation, Keshena, WI, USA. *Sustainability Science*, **11** (1), 127–138. <https://doi.org/10.1007/s11625-015-0304-x>
201. Northwest Treaty Tribes, 2020: Swinomish Revives Ancient Clam Gardens to Fight Climate Change. Northwest Indian Fisheries Commission, Northwest Treaty Tribes. <https://nwtreatytribes.org/swinomish-revives-ancient-clam-gardens-to-fight-climate-change/>
202. Bowra, A., A. Mashford-Pringle, and B. Poland, 2021: Indigenous learning on Turtle Island: A review of the literature on land-based learning. *Canadian Geographies*, **65** (2), 132–140. <https://doi.org/10.1111/cag.12659>
203. Johnson-Jennings, M., S. Billiot, and K. Walters, 2020: Returning to our roots: Tribal health and wellness through land-based healing. *Genealogy*, **4** (3). <https://doi.org/10.3390/genealogy4030091>
204. Irlbacher-Fox, S. and R. MacNeill, 2020: Indigenous governance is an adaptive climate change strategy. *Northern Review*, **49**, 271–275. <https://doi.org/10.22584/nr49.2020.019>
205. The Red Nation, 2021: *The Red Deal: Indigenous Action to Save Our Earth*. Common Notions. <https://www.commonnotions.org/the-red-deal>

206. Donatuto, J., L. Campbell, J.K. LeCompte, D. Rohlman, and S. Tadlock, 2020: The story of 13 moons: Developing an environmental health and sustainability curriculum founded on Indigenous first foods and technologies. *Sustainability*, **12** (21), 8913. <https://doi.org/10.3390/su12218913>
207. Ullrich, J.S., 2019: For the love of our children: An Indigenous connectedness framework. *AlterNative: An International Journal of Indigenous Peoples*, **15** (2), 121–130. <https://doi.org/10.1177/1177180119828114>
208. Britten, M. and D. Deane-Ryan, 2020: Global Scan of Youth-Led Organisations Active on Climate and/or Biodiversity and Youth-Supporting Partners. Robert H. N. Ho Family Foundation. [http://www.rhfamilyfoundation.org/p/RHFF\\_2020\\_Global\\_Scan\\_of\\_Youth\\_Led\\_Organisations\\_Exec\\_Sum\\_Full\\_Version.pdf](http://www.rhfamilyfoundation.org/p/RHFF_2020_Global_Scan_of_Youth_Led_Organisations_Exec_Sum_Full_Version.pdf)
209. IYIC, 2023: International Indigenous Youth Council [Website], accessed May 23, 2023. <https://indigenouslyouth.org/>
210. Privott, M., 2019: An ethos of responsibility and Indigenous women water protectors in the #NoDAPL movement. *American Indian Quarterly*, **43** (1), 74–100. <https://doi.org/10.5250/amerindiquar.43.1.0074>
211. NCAI, 2022: The Native Youth Leadership Summit: Conference Agenda. National Congress of American Indians, accessed September 29, 2022. <https://www.ncai.org/events/2022/02/14/the-native-youth-leadership-summit-nyls-2022>
212. UNITY, 2021: A Platform to Help Out Our Environment, Our Community, and the World. United National Indian Tribal Youth. <https://unityinc.org/native-youth/a-platform-to-help-out-our-environment-our-community-and-the-world/>
213. Fillmore, H.M., L. Singletary, and J. Phillips, 2018: Assessing tribal college priorities for enhancing climate adaptation on reservation lands. *Journal of Contemporary Water Research & Education*, **163** (1), 64–78. <https://doi.org/10.1111/j.1936-704x.2018.03270.x>
214. Kuslikis, A., 2020: Native knowledge for New Horizons: AIHEC's STEM initiatives. *Tribal College: Journal of American Indian Higher Education*, **31** (3), 18–21. <https://tribalcollegejournal.org/native-knowledge-for-new-horizons-aihecs-stem-initiatives/>
215. Paskus, L., 2015: Climate change working group meets at SIPI. *Tribal College: Journal of American Indian Higher Education*, **26** (4), 15–16. <https://tribalcollegejournal.org/climate-change-working-group-meets-at-sipi/>
216. Lubeck, A., W. LaPointe, L. LaPointe, and N. MartinRogers, 2021: Theory of Change: Mni Ki Wakan Decade of Water Summit. Wilder Research, Saint Paul, MN. [https://www.wilder.org/sites/default/files/imports/MniKiWakan\\_DecadeOfWaterSummit\\_10-21.pdf](https://www.wilder.org/sites/default/files/imports/MniKiWakan_DecadeOfWaterSummit_10-21.pdf)
217. Warden, A.A., 2011: Calling All Polar Bears: A One-Woman Show. Allison Akootchook Warden, Minneapolis, MN. <https://www.allisonwarden.com/calling-all-polar-bears.html>
218. Pala Environmental Department, 2022: Tribes, Health, and Climate Change Short-Video Series. Tribal Climate Health. <https://tribalclimatehealth.org/video-series/>
219. Palmer, A. and C. Boutsikaris, 2021: Inhabitants: An Indigenous Perspective. Inhabitants Films. <https://www.inhabitantsfilm.com/>
220. Brewer, S. and M. Trahan, 2021: *Decolonizing Journalism Media By, For and About Indigenous Peoples. Moderators: Amy Stretten and Robert Pluma [Video]*. Craig Newmark Graduate School of Journalism. <https://www.youtube.com/watch?v=rMyG-LgV7Ow>
221. U.S. House Select Committee on the Climate Crisis, 2020: Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America. U.S. House Select Committee on the Climate Crisis, 538 pp. <https://www.preventionweb.net/publication/solving-climate-crisis-congressional-action-plan-clean-energy-economy-and-healthy>
222. Goldtooth, D., A. Saldamando, K. Gracey, T. Goldtooth, and C. Rees, 2021: Indigenous Resistance Against Carbon. Rees, C., Ed. Oil Change International, Washington, DC. <https://www.ienearth.org/indigenous-resistance-against-carbon/>
223. Belfer, E., J.D. Ford, M. Maillet, M. Araos, and M. Flynn, 2019: Pursuing an indigenous platform: Exploring opportunities and constraints for indigenous participation in the UNFCCC. *Global Environmental Politics*, **19** (1), 12–33. [https://doi.org/10.1162/glep\\_a\\_00489](https://doi.org/10.1162/glep_a_00489)

224. USGCRP, 2018: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II*. Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart, Eds. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. <https://doi.org/10.7930/nca4.2018>